

THE CHICAGO MEDICAL REVIEW,

Formerly Chicago Medical Gazette,

Published on the Fifth and Twentieth of the Month.

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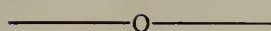
JANUARY, 1880, TO DECEMBER, 1880.

CHANDLER & ENGELHARD,
PUBLISHERS,
60 WABASH AVENUE, CHICAGO.
1880.

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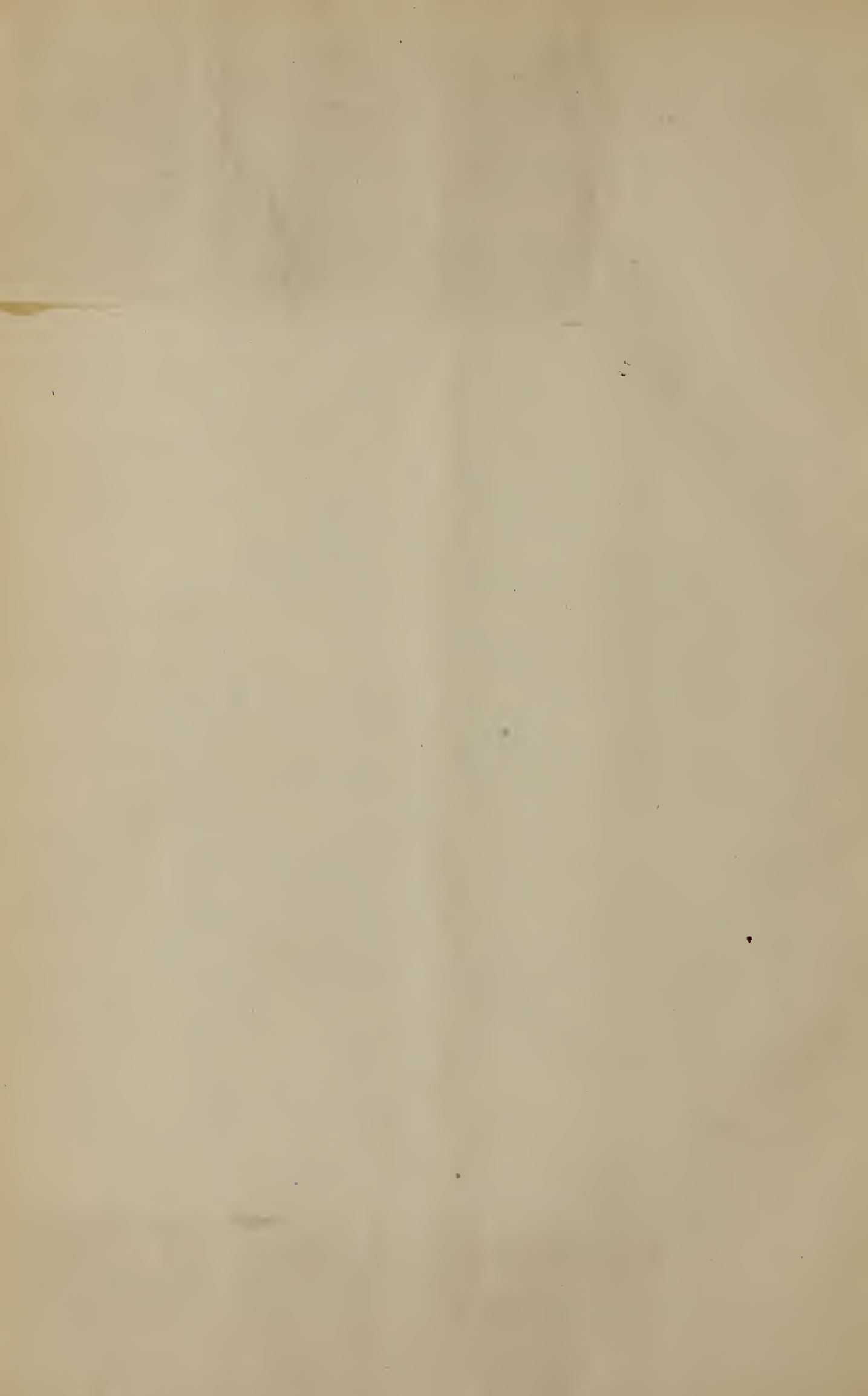
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Chicago Medical Gazette.

PUBLISHED ON THE 5TH AND 20TH OF EACH MONTH.

OFFICE, 70 MONROE ST.

E. C. DUDLEY, M.D., EDITOR AND PUBLISHER.

TERMS \$2 A YEAR.

VOLUME I.

CHICAGO, JANUARY 5, 1880.

NUMBER 1.

THE AMERICAN ACADEMY OF MEDICINE, organized three years ago (see reprint from the Academy's circular, page 11), rejoices in one inherent weakness. It requires for membership the degrees of A.B. and A.M., and excludes all who do not possess them both. Such a requirement would shut out a majority of the most deservedly eminent men in the American profession,—men who are thoroughly in sympathy with the prime object for which the Academy is said to have been organized, i.e., regular classical and scientific courses of study as the preparation for professional training. The difficulties experienced by many for want of such preliminary education makes them the more favorable to any plan which may encourage young men to lay broad classical and scientific foundations. The Academy ignores vast differences in the standards adopted by American colleges. Some of the thirty-seven universities in Ohio may confer A.B., A.M. at the end of a course which would not fit a man for the freshman class at Harvard, Yale, Dartmouth or Princeton, and yet a graduate of any one of these last named who had omitted to take his A.M., which could have been obtained for the asking, is ineligible. A large minority of college men decline to take A.M., preferring to retain A.B. alone, because the latter can only be given as the result of four years of work, while the power which all colleges have of making the former honorary has been abused by causing the honor to be scattered broadcast among the undeserving. In this country as in no other the profession has, and for a long time will continue to have, a respectable remnant of so-called self-educated men, who have honestly made up, as far as possible, for defects in early education. Indeed, the majority of our foremost men are probably of this class. The reforms aimed at by the Academy are all important, and our wretched system of medical education will not materially improve until these reforms have been made. But the A.B., A.M., M.D's of the Academy have undertaken a task in which they may need help. The sooner they recognize and remedy their mistake the better it will be for the cause in which they have organized.

FROM Hospital Neckar M. Potain publishes in the Gazette (No. 96) a case of excessive anæmia in a woman twenty-eight years old, an employe of an umbrella factory. Potain traced the cause of the malady to the use of great quantities of turpentine used in the black enamel of the iron wires composing the umbrella frames. The inhalation of the terebinthinate fumes had poisoned her in this manner.

EMMET'S Principles and Practice of Gynæcology, now before the profession only for a few months, has won a degree and quality of appreciation, perhaps, never equaled by any other American work on medicine or surgery. Such appreciation comes not from chance. Before the time of this work gynæcological treatises had been mainly compiled from crude contributions, of which the value had not been tested. Inaccurate observations and false deductions had formed the basis of this literature. Inflammation, ulceration, congestion, displacement and constitutional defects had each in turn been made the center of a system of uterine pathology. In the wild enthusiasm of the previous twenty-five years, the human uterus had been subjected to a degree of violence at the hand of the regular profession, and in accordance with the teachings of its distinguished authorities, which, if told, would, perhaps, rival in horror the story which Hamlet failed to hear from his father's ghost. Dr. Emmet was not tempted into premature publication. He waited twenty-five years, and then gave the diseases of women, their pathology and their treatment, such a sifting, that already the errors which in former years had been copied from author to author, and which but yesterday were held as truth by the mass of the profession, are thrust aside to make place for the original pathology and for the original therapeutics of this eminently original work.

CAPTAIN and Assistant Surgeon Girard, of the United States Army, begins an excellent paper, treating of his visits to foreign Lister hospitals, with these remarks: "Who, before this, would have fearlessly opened the knee-joint for suppurative arthritis, as I saw done under the 'spray,' the patient recovering in a few days with a sound joint? Who would have expected an ovariectomy with general adhesions, in a woman of seventy-five, to heal in eight days without a symptom of reaction; or a laparotomy, for the liberation of incarcerated peritoneal hernia, in a moribund patient, healing in six days, or a resection of the ulna in nine days? I observed several hip-joint resections recovering in the most favorable manner; numbers of compound fractures of the extremities knitting under Lister's dressing like simple ones; even comminuted fractures, which formerly would have induced removal of the limb, united without an unfavorable symptom." In a subsequent number we may show that such results have not been the rule in Chicago, and that failures have resulted rather from carelessness or neglect in following Lister's directions than from any defect in the method itself.

At the meeting of the American Neurological Association, last June, a discussion on electro-therapeutics took place, during which considerable skepticism as to the therapeutic value of different poles in the application of the constant galvanic current was expressed. The opinion of the majority of the speakers seemed to be that in most cases it made but little difference which current, the ascending or the descending, was employed. The partial report of this discussion, as it appeared in the New York Medical Record, called out a letter to that journal from Mr. J. D. S. Smith, of Bridgeport, Connecticut, defending the therapeutic value of the polar action of electricity, going even so far as to say that the importance of the direction of the current can be demonstrated "beyond a quibble or doubt" by any person of ordinary intelligence. Dr. A. D. Rockwell followed in a letter indorsing in the main Mr. Smith's views, and reaffirming some of his own statements in the discussion referred to. These communications in turn were followed by one from Dr. L. C. Gray, of Brooklyn, who restates his position in regard to the question, which is practically the same as that held by Drs. Hammond and Beard, and by other members of the Neurological Association. It is that, while not denying the different effects of the poles and current directions in physiological experiments, there is very insufficient evidence that this difference exists therapeutically, so as to be available in applications to the more deeply seated nerve tissues of the body. There is probably some therapeutic difference in applications to the superficial nerves of the face, and to isolated organs like the uterus, but that this is the case elsewhere is by no means so satisfactorily established. Dr. Gray quotes, as in favor of his view, a list of authorities whose professional standing should make any gentleman hesitate before excluding them, even by implication, from the category of physicians of ordinary intelligence.

ACCORDING to a paper read by M. Lancereaux at the meeting of the French Association for the Advancement of Science, last August, there are two types of diabetes, the fat and the lean. The first has an insidious commencement, showing itself by obesity between the ages of twenty and thirty. Gradually there appear polydipsia, polyphagia and polyuria, with slight or intermittent glycosuria. Its progress is essentially chronic, and its duration indefinite. Death occurs either from carbuncle, phlegmon or gastrorrhagia; rarely from pulmonary consumption. This form is frequently observed in patients with gouty or calculous heredity. No constant lesion is met with at the autopsy. The other form is quite different: Commencing suddenly from a condition of good health, it is characterized by the rapid appearance of polydipsia, polyphagia, polyuria and sugar in the urine, a progressive loss of flesh and strength, decline of sexual power, a continuous course and comparatively brief duration,—one, two, three, six years or more. Its fatal termination is frequently by phthisis pulmonalis,

which begins in a chronic pneumonia, with viscid and greenish sputa. All these characters distinguish this second type, which will be recognized as the classic diabetes mellitus of the text-books. Its etiology is obscure, but in both of the two cases which were examined by M. Lancereaux there was *destruction of the pancreas*. He thinks, therefore, that there is good ground for a nosological distinction of these two varieties, and that there are good reasons for inferring direct relations between diabetes and destructive lesions of the pancreas. In regard to this last point M. Lancereaux is in accord with other authorities, such as Senator, who seems to favor the view of Klebs, that diabetes depends upon disease of the cœliac plexus, and that this may arise secondarily from pancreatic disorder. The distinction is of practical importance.

At a recent meeting of the Medico-Legal Society of New York, Mr. Amos G. Hull, in connection with the subject of malpractice, then under discussion, suggested two very important points by which physicians might in most cases avoid the disagreeable consequences of a prosecution. The first was, that as soon as they are satisfied, upon a careful examination of the case, that they have made a mistake, they should go and compromise with the aggrieved parties, and propose to do what is just and fair. The second was, that if a surgeon is threatened with a suit, and is satisfied that his practice has been correct, and he is guilty of no negligence or malpractice, he should bid defiance at all hazards to his adversary. He should immediately, when threatened with a suit, seek an honest, respectable judicial forum, and prosecute for the collection of his bill. The patient would be legally bound to set up negligence or malpractice as a defense to the bill. If he did not, and judgment was recovered, that judgment would be forever a bar to the recovery by the patient for any malpractice, for the judge will hold that he had no such defense. If he had, he should have set it up then and there, or forever hold his peace.

DR. W. J. SCOTT, in the Toledo Medical and Surgical Journal, raises the anthropological question, Is the negro exempt from delirium tremens? In a large number of dissipated subjects he has failed to find a case. The question may properly take the general form and include not only delirium tremens and the colored race, but all nervous diseases and the entire animal kingdom. It may be stated as follows: Is not the amount and intensity of nervous diseases very generally proportionate to cerebral development? If the proposition which this general question implies be true, it is evident that the negro is much less liable than the Indo-european, not only to delirium tremens, but to all nervous diseases. To establish his absolute immunity as a fact, would require more evidence than has been adduced. It is probable that he is not more free from delirium tremens than he is from other neuroses.

THE protection furor of our Canadian neighbors has extended from the domain of trade to that of the learned professions. A recent act to regulate the practice of medicine provides for the formation of "the College of Physicians and Surgeons of the Province of Quebec," to consist of every licentiate under preceding laws and such as may be permitted to practice hereafter. A creditable education in both French and English is to form the basis of preparatory training. Admission to medical schools is to depend upon rigid preliminary examination. The professional course is to include at least four years of uninterrupted study, all of which is worthy of commendation. Among the provisions of this act is one that requires practitioners not graduates of certain Canadian or British schools to pass both the preliminary and professional examinations before being permitted to practice within these parts of Her Majesty's dominion. This provision is doubtless aimed at the miserable system of medical education so notorious in many of the low grade medical colleges in the United States, and would be eminently proper if it did not also require, previous to the professional examination, actual attendance upon a course of at least six months at some Canadian school. The ridiculous features of such a requirement will strike any intelligent person; but the idea does not appear to have permeated the Canadian intellect that the act requires men of cosmopolitan reputation—such men as Austin Flint, Marion Sims and N. S. Davis—to go back to first principles in some eminently provincial medical college, there to remain during a hermitage of six months. Is the medicus canadensis unable to conduct an examination which alone shall determine whether foreign doctors may write M.D., M.C.P.S., P.Q., after their names, or is the act framed in the interest of certain Canadian schools? Such a requirement speaks ill for the scientific spirit of the medical profession in Quebec.

IN the July number of the Journal of Nervous and Mental Diseases, Dr. Jewell makes a valuable addition to the scanty literature of Neurasthenia. Primarily, the lesion is located in nerve-structure, and is a morbid preponderance of waste over repair. The effect of this lesion on the vascular system is presented with some originality. The vaso-motor nerves of the nutrient vessels of the heart, the cardiac-motor of the vagus, the cardiac accelerators, the cardiac depressors, the nerves supplying the muscular arteries, and the spinal vaso-motor nerves which supply the peripheral vaso-motor apparatus classified into vasodilators and vaso-constrictors, are all called to account for sudden local fluctuations in blood supply—fluctuations from a too free and tumultuous supply for healthy nutrition down to partial anæmia, and for the consequent irregular, unsteady and unreliable nerve nutrition and nerve action, both general and local. It is a medical habit to cover up a vast amount of ignorance under time-honored and vague words,

such as functional and idiopathic; for example, cardiac irregularity is generally called functional, unless some structural lesion of the valves or walls of the organ be detected by physical signs; but irregularities arising from lesion of the nerves of an organ are not more properly called functional than irregularities arising from structural change of any other part of the organ. The paper of Dr. Jewell is also suggestive of much that goes to explain the pathology and phenomena of hysteria, a word not often used with any idea of definite lesions, but very often employed to indicate the actual presence of the devil, especially when the doctor is about to treat the patient very much as he would desire to treat His Majesty if he could, fortunately, get his hands on him. The extensive relations of neurasthenia to general pathology, and to general therapeutics, and its influence on the mind and on the body, are to be discussed in an original work which Dr. Jewell is writing. The work is to be a comprehensive treatise on Neurasthenia.

It is gratifying to see etiologists recognizing the important influence of the nervous system over the body in health and disease. Fessenden N. Otis, Professor in Genito-Urinary Diseases, College of Physicians and Surgeons, New York, in clinical lectures on the physiological pathology of syphilis (published in the Boston Medical and Surgical Journal, Vol. CI, No. 13), asks: "What can and is most likely to cause long continued dilatation of capillaries and stasis of the blood?" In seeking an explanation of the roseolous eruption of syphilis, he says that inasmuch as it is known that the capillary vessels derive their nerve supply from the sympathetic nervous system, their loss of contractility, and consequent dilatation, could occur only through some impression upon the sympathetic system, causing paresis of the nerves supplying the walls of the capillaries. He quotes Erasmus Wilson, 1871, as saying that the influence of the vaso-motors is involved in the production of roseolas, but that Wilson practically excluded the roseola of syphilis. Citing cases where anger and other mental emotions will bring out roseolous eruptions in no way distinguishable from those of syphilis, he concludes by inferring that all the roseolas are the result of an impression upon the sympathetic nervous system, a paresis of the vaso-motors of the cutaneous envelope.

SURGEON-GENERAL HAMILTON, of the United States Marine Hospital service, is quietly and efficiently advancing the interests of commerce by gratuitous physical examination of seamen desirous of shipping in the mercantile service. This enables ship-masters to select efficient crews, and materially diminishes the number of chronic candidates for admission to marine hospitals. American shipping commissioners are generally taking advantage of these examinations, and foreign ship-owners are already negotiating with the view of doing the same. Examinations at present

are made only upon voluntary application of shipping commissioners and captains, but it is expected that congress, in accordance with its power to regulate commerce, will make them compulsory.

THE National Board of Health is made up mostly of general practitioners, residing at such long distances from one another, that mutual acquaintance is impossible, and frequent meetings are impracticable. The duties of a board so organized must necessarily be delegated, in a large degree, to one or more persons mutually acquainted and located at some central point. The National Board of Health, therefore, has practically resolved itself into one or two officers at Washington. The board, therefore, as a whole, is a practical nonentity, and the fancy legislation which called it into being and authorized it to spend a half million of dollars from the U. S. treasury, has simply created another health department, having jurisdiction in certain matters previously looked after by the U. S. Marine Hospital Service, and has practically placed the power of this new department in the hands of a small minority of the legally constituted board. Had the U. S. Marine Hospital Service been inefficient, which does not appear, it should have been improved. No good reason has been shown for the transfer of any of its power. The south, with unwonted relish for national supremacy, called for a national appropriation of a half million dollars, to be used ostensibly for putting southern cities in sanitary order. Then an act was passed creating this board, and to give it a coloring of liberality the board was made up of prominent medical men scattered from one end of the Union to the other, so scattered as to render most of them mere figure-heads. The nucleolus of the whole matter thus appears; a medical officer of the army, and possibly one or two others are being magnified at public expense. Can the originators of the law explain why certain powers were taken from the Marine Hospital Service and delegated to this board, or why it has been so organized that a majority of its members are figure-heads, or what necessity existed for its creation? Now that the hurrah under which it was ushered into existence is subsiding, people are beginning to inquire what we want of a National Board of Health. The problems of local sanitation and urban cleanliness are the only really important ones, but they do not depend for solution on the National Board. This board has thus far failed to enunciate a new truth, to lay down a new practical rule. It has appointed scores of "inspectors" to work over ground already thoroughly covered by local boards. The commerce of the country has been damaged millions of dollars by injudicious and premature fright, brought about by the desire of the board to convince the country of its usefulness. The method by which local boards are persuaded to endorse their so-called rules is unworthy of a scientific body. The method is simple: an "in-

spector" calls at a country town, calls upon the mayor, asks the mayor if he wants any money for putting the town in order. The mayor always wants the money. He is simply required to adopt the rules, which having been done, the remittance is forwarded, and the endorsement of the rules is duly heralded in the Bulletin, by which the general public is supposed to be informed that the particular local boards are fully endorsing everything. Poverty of southern cities, rather than a widespread faith in the board, leads to the endorsement of these rules. Several cities, notably Vicksburgh and Key West, have refused to endorse the dogmas contained in the several circulars, and declined to place themselves under the guardianship of the National Board. These cities receive no money, but have instead the satisfaction of sturdy independence. In one of the first numbers of the Bulletin it was announced with a great flourish that the board expected to show the results of its "investigations on other animals than man." A commission duly selected with regard to its soundness on the germ theory and faith in quarantine, was sent to Havana to experiment. This commission placed on board the yellow fever infected brig John Walsh, of Philadelphia, monkeys, dogs, cats and parrots. The individual who acted for the commission did not remain on board the vessel to watch the monkeys, and the cabin boy kindly assumed that duty, and now reports that he gave each monkey a "chew of tobacco." The monkeys being sick when the inspector returned, the fact was cabled to the National Board at Washington, and announced in the Bulletin as a commencement of the tidal wave of information that was to deluge the medical world. "The monkey was discovered to be susceptible to the contagious influence." Captain Armstrong's story may not be correct, but the thinking public will always be harassed with doubt. The following is from the Nautical Gazette, July 9, 1879:

According to laundry rules for ships, adopted by the National Board of Health, "Each seaman shall have two suits of underclothing, the clothing and bedding shall be aired every clear day, the men shall be required to change their underclothing every evening, after work, while in port, and each working suit shall be washed, dried and aired after a day's work." That "each seaman shall have two suits of underclothing" is quite proper; but who is to enforce this—the captain, the shipping commissioner, or the National Board of Health? Who will superintend the washing, and where is the drying air to be found at night, in tropical climates, where the dew falls like rain? And then the average sailor has but one working suit, so that if he must wait until it is "dried and aired," he either must work, the next day, clad in nothing, or in one of those "two suits of underclothing." Evidently the learned men of the National Board of Health have never been at sea, yet they seem to be all "at sea" as to carrying out their rules on ship-board. "These regulations as to clothing, airing of bedding, and ventilation, shall, as far as possible, be observed at sea as well as in port." According to this rule, the crew would be kept busy washing, drying and airing the "two suits of underclothing" and the "working suit," and in the spare time, amuse them-

selves in "airing the bedding." To carry out this plan, half of the cargo would be washing-water, and soap, while the men could tell the captain that by law they must wash their undershirt before furling the top gallant sails, or putting a reef in the topsails. The National Board of Health would turn poor Jack into a washerwoman. If this learned board do not know any more about ships and what is necessary to keep their sanitary condition up to a proper standard than is shown in rule 18, their powers should at once be curtailed, so far as relates to vessels. It seems to us that the National Board of Health will prove to be a very expensive and needless adjunct to Federal affairs, and, as we have said before, it has an odor of jobbery about it that is very suspicious.

THE following is the résumé of a valuable paper on the third stage of labor, by Dr. De Laskie Miller, read before the Chicago Gynecological Society on the 25th of April, 1879, and published in the June number of the Journal and Examiner. Dr. Miller shows that post partum hemorrhage and some other accidents may be avoided by proper management of this stage:

RÉSUMÉ.

First. Contraction of the uterus after the birth of the child are essential to complete the detachment and expulsion of the placenta first, and second to compress the sinuses and thus to prevent hemorrhage.

Second. Periods of rest during this process are important, to permit the closing of the disrupted sinuses by sealing with coagula.

Third. The early agitation of the uterus by kneading and compression would defeat the conservative forces of nature in this stage of natural labor.

Fourth. Withhold ergot till the placenta is detached.

Fifth. Deliver the placenta by bringing it down edgewise with the hand, and not by traction upon the cord.

Sixth. Inertia of the uterus without hemorrhage requires time and restoratives.

Seventh. In inertia of the uterus with hemorrhage, introduce the hand to deliver the placenta, and at the same time secure contraction.

Eighth. Irregular contraction is best overcome by moderate force, continuously applied.

Ninth. Abnormal adhesion requires artificial interference as soon as the diagnosis is made.

ATTENTION is called to the able paper of Health-Commissioner DeWolf published in this number. In matters of public sanitation the tendency of the present is toward the protection of society, whose rights in other matters have long been held paramount to those of the individual. The doctor and the jurist are disposed to have less and less regard for the individual whose interests encroach upon the sanitary well-being of the people. The health department of Chicago has acted in accord with this modern tendency in placing warning cards on all houses containing scarlet fever, in isolating all cases of small-

pox, and in the prosecution of the rendering establishments which for years have defiled the atmosphere of the city. The sympathy and support of the profession is manifest in a resolution which was unanimously passed at the October 6 meeting of the Chicago Medical Society, giving to the health commissioner the unqualified approval of that body.

PROF. WM. RUTHERFORD and Messrs. Vignal and Dodds have been experimenting on dogs with cholagogues, and report to the British Association as follows:

Calabar bean feebly stimulates the liver.

Atropia sulphate antagonizes the latter, but alone hardly affects the gland.

Baptisin is a hepatic.

Phytolaccin is a strong hepatic stimulant.

Plumbic acetate diminishes its secretion.

Ammonium phosphate stimulates the liver.

Hydrastin similarly affects it.

Juglandin also.

Sodium-benzoate powerfully stimulates it.

Ammonium-benzoate, in less degree.

Benzoic acid, less stimulant, owing to its insolubility.

Sodium salicylate very powerfully stimulates.

Jaborandi feebly stimulates.

Negative or feeble results were obtained with dilute alcohol, hyoscyamus, morphia, sulphate of manganese, potassium iodide and bicarbonate, sodium chloride and bicarbonate, tannic acid, menisperm.

DR. H. C. HOWARD, of Champaign, Illinois, declares that with one thorough application of nitrate of silver (solid stick) to the tonsils in the first stage of acute tonsilitis he has rarely failed to prevent suppuration. His experience includes many patients who had previously been subject to frequent attacks of acute suppurating tonsilitis. For catarrh and for chronic pharyngitis, and for granular erosion of the pharynx, he employs the following as a direct application to the diseased part, and says that its use generally results in speedy cure:

Sugar of milk, 200 parts.

Iodoform, 100 parts.

Thymol, 1 part.

The thymol is said entirely to deprive the iodoform of its disagreeable odor.

MAISCH discovered an acid in the vesicles produced by poison oak, he calls toxicodendric, and naturally infers that its neutralization by an alkali would afford relief. Dr. Clevenger, of Chicago, has tested this remedy, practically, in twenty-five cases, and called the attention of army surgeons along the Missouri and Yellowstone rivers to the good results following the use of either sodium bicarbonate, aqua ammonia or any other alkaline external treatment, with saline cathartics and diuretics. The favorite remedies for rhus poisoning generally contain the alkali and depend wholly upon it for whatever of virtue they may possess.

DR. MARTIN F. COOMES, surgeon to the Eye and Ear Infirmary, Louisville, in a recent Louisville Medical Herald, concludes an article on Foreign Bodies in the Ear with the remarkable statement that in the event of ankylosis, or the absence of the ossicles, no form of artificial membrane can be of the least benefit, because of the absence or impairment of a part of the conducting apparatus. Dr. S. J. Jones, in his monograph, *The Present State of Otology*, declares that the artificial membrane of cotton or wool may afford assistance in hearing when there is loss of the whole or part of the drum membrane, or of one or more of the ossicles, and that it also serves as protection and as a medium of medication.

DR. EDIS, in England, and the Philadelphia Medical Times, in America, are creditably portraying the evils and cruelties to which shop-women are subjected by their employers. In consideration of very small salaries they are required to dress well, to work often more than twelve hours daily, with little intermission at noon. They are not permitted to have seats during business hours. The inevitable tendency of such a life is toward neurasthenia, uterine diseases and broken health. The Philadelphia Medical Times says that the close relation which medical men often hold to the employers and to the employed gives to them an influence which should be exerted in behalf of these women.

MANY large cities are placing perforated man-holes at intervals over the sewers. These openings permit the gas to escape into the atmosphere instead of permeating and poisoning the air of dwellings. Protests are making their appearance in the daily papers against this "new method of poisoning the out-door air." A simple mathematical calculation, however, shows that the dilution of gas in the air of the streets is at least a million times greater than of gas confined under ordinary circumstances in the dwelling.

THE following professors have recently been made: In Chicago Medical College, Dr. E. W. Jenks, gynecology; Dr. H. Gradle, physiology.

In Rush Medical College, Dr. Wm. H. Byford, gynecology; Dr. John E. Owens, orthopedic surgery; Dr. J. N. Hyde, dermatology.

In the Woman's Medical College, Dr. Wm. J. Maynard, dermatology; Dr. Wm. T. Montgomery, ophthalmology and otology; Dr. Fletcher Ingals, diseases of the chest and throat.

DR. KRUCHT, of Walheim, Saxony, reports 389 collected cases of tetanus in the *Med. Jahrbucher*, 134 of which had been treated with chloral, the remainder surgically, and with calabar, curare, etc. His opinion is "that chloral gives better results in the treatment of tetanus than any other agent known." Dr. D. W. Yandell, in the *Birmingham Review*, claims that chloroform has yielded the largest percentage of cures in acute tetanus.

THE Chicago Journal of Nervous and Mental Diseases, although only a few years before the profession, already ranks with the highest periodical literature both at home and abroad. In modern times the recognized relations of general pathology and therapeutics to neurology are so close that it becomes not a specialty, but rather an essential feature of general medicine. The general practitioner, therefore, cannot keep pace with the times unless he is continually informed of the progress of knowledge relating to the nervous system. The journal above mentioned is admirably adapted to his needs. See advertisement on first cover page.

PROF. ESMARCH, at the reunion of the German Surgical Society last April, proposed that in active service each soldier should be provided with a little package, easily carried on the person, containing a gauze bandage, a triangular compress and some salicylated cotton, the whole done up in water-proof parchment. These would enable him on the battlefield to prepare at once a temporary antiseptic dressing. The suggestion appears to be an excellent one.

THE queries of Dr. E. Andrews, of this city, on the dangers attending carbolic acid injections into hemorrhoidal tumors and their results, which were published in the Chicago Medical Journal and Examiner and in the Cincinnati Lancet and Clinic, have been extensively copied by foreign journals. The St. Petersburg Medicinische Wochenschrift reprints a translation of the queries in full.

DR. J. J. CALDWELL, of Baltimore, in the Southern Clinic, calls attention to the use of the galvanic current passed between the forehead and plantar surfaces in the treatment of hydrophobia as advocated by Dr. Hammond. The feeble current should be persevered in for days, with chloroform and chloral, during paroxysms, and nourishment administered hypodermically and by the rectum.

SIDNEY RINGER, M.D., Professor of Medicine at University College, London, narrates in the Practitioner an interesting case of athetosis, with notes of the post-mortem examination, revealing a cyst in the lenticular nucleus of the corpus striatum, involving in lesser degree adjacent parts. The whole of the corpus striatum was much damaged.

IN every legitimate manner the public should be informed that the Swedish movement cure is only one part of the massage system of passive exercise, so well portrayed in the excellent little book of Weir Mitchell, entitled *Fat and Blood*, and that the few truths which the movement-cure contains are capable of absorption into regular practice.

DR. J. W. GRIGGS and others recommend veratrum viride in puerperal eclampsia. Dr. Bunker, of Brooklyn, has given it in the most heroic doses with good effect. He administers the drug hypodermically.

DR. REUBEN A. VANCE, a Cincinnati surgeon, is rapidly acquiring a reputation in the operation of lithotomy. It is said that his exceptional success in the performance of this operation has already earned for him the confidence of the profession of the Ohio valley. In his recent paper read before the Tri-State Society, at Evansville, is a suggestion that deserves notice. Dr. Vance says that he has succeeded in reducing urethral and vesical irritability by employing strong solutions of the sulphate of morphia. In urethral hyperæsthesia a penis syringe was used, and a half ounce of an aqueous solution (20 grains to the ounce of water) of the sulphate of morphia was thrown into the urethra, and there retained for a few moments, its rejection being at once followed by the insertion of a catheter, through which it was possible to inject more of the same solution directly into the cavity of the bladder. As soon as the anodyne was thrown into that organ one of the two compartments of the double catheter was connected with a fountain syringe, and the vesical cavity was instantly flooded with warm water, thus obviating any danger of absorption from the mucous lining of the bladder. Not only did this measure succeed in allaying urethral and vesical hyperæsthesia, but by closing with the finger the compartment of the catheter, through which water escaped from the vesical cavity after washing out the morphia, Dr. Vance succeeded in dilating the hitherto contracted bladder, and by repeating the process a few times was enabled to restore the retaining power of the bladder to the degree necessary for measuring, and otherwise examining the calculus which was the origin of all the trouble, without being compelled to inject any fluid. The paper will appear in the "Transactions of the Tri-State Society," 1879.

THE members of the Tri-State Society — Indiana, Illinois and Kentucky — are to be congratulated upon the success which has crowned their efforts. The fifth annual meeting was held at Evansville, Indiana, November 4, 5, 6 and 7, Dr. J. A. Ireland, of Louisville, presiding. The attendance from other states was far beyond expectation, and the high professional character of the visitors shows the esteem in which the organization is held in neighboring states. The time of the session, although exceptionally long, was insufficient for the presentation of all the papers contributed. Toward the close of the third of the four days' session seventy original papers still remained unread. The Society meets at Louisville in 1880, and Dr. H. B. Buck, of Springfield, Illinois, will preside. Drs. Charlton, of Seymour, Indiana; Singleton, of Paducah, Kentucky; Buck, of Springfield, Illinois; Gatch, of Lawrenceburg, Indiana; Stevens, of Indianapolis; Furman, of Henderson; Walker, of Evansville; Pearson, of Indianapolis; Bell, of Kentucky Lunatic Asylum; Vance, of Cincinnati; Briggs, of Nashville; Thompson, of Paducah; Compton, of Evansville; Letcher, of Henderson, and Fairbrother, of East St. Louis, Illinois, were among the essayists. The

"Transactions" will fill a large and valuable volume. The thanks of the Society are due to Dr. G. W. Burton, of Mitchell, Indiana, for the efficient manner in which he performed the duties of Secretary.

MAISCH'S National Dispensatory is gaining in favor as a work of reference. In some respects it is superior to the "United States" Dispensatory. The therapeutical index is a valuable part of the book.

M. POUCHET occupies the chair of comparative anatomy in the Natural History Museum, at Paris, made vacant by the death of M. Paul Gervais.

OFFICIAL LIST of Changes of Stations and Duties of Officers of the Medical Department, U.S. Army, from Oct. 1, 1879, to Oct. 15, 1879.

- Sutherland, Chas., colonel and surgeon. To report in person to the commanding general, military division of the Pacific, for duty as medical director of that division. S. O. 229, A. G. O., Oct. 4, 1879.
- Irwin, B. J. D., major and surgeon. To report in person to the commanding general, department of Dakota, for assignment to duty. S. O. 229, c. s., A. G. O.
- Wolverton, W. D., major and surgeon. To report in person to the commanding general, department of Dakota, for assignment to duty. S. O. 229, c. s., A. G. O.
- Gibson, J. R., major and surgeon. At expiration of his present leave of absence, to report in person to the commanding general, department of the East, for assignment to duty. S. O. 235, A. G. O., Oct. 13, 1879.
- Taylor, M. K., captain and assistant surgeon. To accompany second detachment of the 4th cavalry from Fort Clark to Fort Hays, Kansas, and return to proper station upon completion of this duty. S. O. 211, c. s., Department of Texas.
- Middleton, P., captain and assistant surgeon. Assigned to temporary duty, as post surgeon, at the post of San Antonio, Texas. S. O. 211, department of Texas, Oct. 7, 1879.
- Munn, C. E., captain and assistant surgeon. To report in person to the commanding general, department of the Missouri, for assignment to duty. S. O. 232, A. G. O., Oct. 9, 1879.
- Byrne, Chas. B., captain and assistant surgeon. Relieved from duty in department of Texas, to proceed to New York city, and, on arrival, report by letter to the surgeon-general. S. O. 235, c. s., A. G. O.
- Moseley, E. B., 1st lieutenant and assistant surgeon. Having reported in person, relieved from duty at Fort Robinson, Nebraska, and to report in person to the department commander at Rawlins, Wyoming Territory. S. O. 89, department of the Platte, Oct. 6, 1879.
- Finley, J. A., 1st lieutenant and assistant surgeon. Granted leave of absence for four months. S. O. 230, A. G. O., Oct. 6, 1879.
- Kilbourne, H. S., 1st lieutenant and assistant surgeon. To report in person to commanding general, department of the East, for assignment to duty. S. O. 235, c. s., A. G. O.
- Comegys, E. T., 1st lieutenant and assistant surgeon. Relieved from operation of par. 7, S. O. 210, c. s., from these headquarters. S. O. 211, c. s., department of Texas.
- Biar, V., 1st lieutenant and assistant surgeon. Granted leave of absence for one year, on surgeon's certificate of disability, to take effect Oct. 1, 1879, with permission to go beyond sea. S. O. 232, c. s., A. G. O.
- Appel, A. H., 1st lieutenant and assistant surgeon. To repair to Fort Benton, M. T., and to report to the post commander for duty as post surgeon. S. O. 106, department of Dakota, Sept. 30, 1879.
- Phillips, H. J., captain and assistant surgeon. Died in New York city, on Oct. 10, 1879.

REVIEWS AND NOTICES.

MEMORANDA OF POISONS. By Thomas Hawkes Tanner, M.D., F.L.S. Fourth American from the last London enlarged and revised edition. Philadelphia: Lindsay & Blakiston. 1879.

A useful little book, inculcating many principles in toxicology frequently lost sight of. Tanner emphasizes such parts as "Never wait for a remedy, however perfect, if an imperfect one is at hand. That is best which is readiest; the grand rule is, lose no time." He believes that cases of secret poisoning are more frequent than is generally supposed, and devotes much of the book to descriptions for diagnoses of such cases.

LESSONS IN GYNÆCOLOGY. By William Goodell, A.M., M.D. Jansen, McClurg & Co., Chicago.

Dr. Goodell apologizes for the book in the preface by saying that this is not a treatise on diseases of women; that he is too busy to write one; that he has brought together into this form certain lectures, certain notes taken by two of his medical friends, and certain contributions to medical journals; and that in so doing he yields to the wishes of his students, and of such doctors as have attended his lectures. This is a mistake. If the book be of value, it needs no apology; if not of value, it should not have been published. Besides, such a preface leaves the reader harassed with doubt, not knowing what sort of a book the author could have made if he had only tried.

In the chapter on instruments mention is made of only one contra-indication to the use of the sound, pregnancy. Dr. Goodell doubtless knows, and should be censured for not having explained, that recent or old cellulitis is another contra-indication, and that failure to observe it is very liable to result, primarily, in more cellulitis; secondarily, in more uterine disease. Dr. Goodell doubtless knows, and should have said, that the fine silver probe is in the skillful hand more efficient, and in any hand safer, than the sound. The chapters on urethral and vesical diseases, including fistulæ of the female genital organs, are brief, too brief, and contain nothing specially noteworthy. The chapters on laceration of the perineum and perineorrhaphy would have passed muster ten years ago, but not to-day. In the operation for partial and complete rupture a cut is introduced, in which the denudation is represented as made only along the lacerated labia by the old method of Baker Brown, and not by the improved method of Emmet, who denudes back on the posterior wall of the vagina, and includes in the operation enough of this wall to form a solid triangular perineal body, and to dispose of the rectocele if there be one. The operation described by Goodell would necessitate the removal of the rectocele, if it were present, by the additional operation of posterior elytrorrhaphy, and thus the material which should be utilized for the formation of the new perineum would be lost. The Peaslee needle is recommended, although it makes a punctured wound several times larger than

the silver wire which it is to contain. The fine, long, straight needle now used by the best operators, among whom are Emmet, Thomas and Sims, is not noticed. The lower suture in the operation for complete rupture, and for restoration of the sphincter ani muscle, is not represented low enough, nor is the manner of introducing this suture so explained as to show one not familiar with the operation how to do it with prospect of success.

The author makes the old mistake of confounding congestion of the uterus with fancied metritis or endo-metritis. He also consistently treats the endometrium as if it were actually an offender, instead of an innocent membrane striving to relieve the uterus of its engorgement of blood by a secretion. He talks of applying powerful caustics to the endo-metrium, as did our misguided fathers twenty years ago. Fuming nitric acid is not too powerful for him; cauterization must be "thorough," and to insure this two or three applications at a time are enjoined. Will the human uterus ever be regarded useful for anything other than for thrusting with sounds and for swabbing with caustics? Is the day of the uterus swabber ever to end?

This author says, in the course of his consideration of caustics: "I have come to the conclusion that he is the most successful gynæcologist who is the most plucky."

Dr. Thos. Addis Emmet says: "If it be held that the increased secretion is simply an attempt of nature to relieve an obstructed venous circulation, . . . then the caustic treatment is to be deemed not only irrational but most hurtful. A whole generation of physicians has been misled by the delusion of chronic inflammation and ulceration of the uterus, conditions which no one has yet been able to demonstrate on the dead body. The female organs of generation have been mercifully endowed with a degree of tolerance to injury not possessed by the male, and woman is thus protected that she may be able to bear the perils of gestation. But few, however, of the many physicians who undertake to treat these diseases fully realize that there is naturally a limit to this immunity. No portion of the body has suffered more in consequence of incapacity on the part of members of the profession. . . . Under the guise of surgery the uterus has been subjected to a degree of malpractice which would not have been tolerated by any other portion of the body; its cavity has been, and is still, made the receptacle for agents so destructive that no conscientious man would employ them for the treatment of diseases in any other portion of the body without a full appreciation of his responsibility. But I trust that we have already passed the heroic age."

The chapter on laceration of the cervix is satisfactory, and the author is entitled to credit for having kept pace with the time on this subject. The chapters on "nerve tire and womb ills," on "the prevention of uterine disorders," on "the relations which faulty closet accommodations bear to the dis-

eases of women," and on the sexual relations as the cause of uterine disorders, are excellent, and show the capability of the author for good original work. The literary execution of the work is, in general, good, although defective in certain non-essential particulars.

STRUCTURE DES CIRCONVOLUTIONS CÉRÉBRALES.
Par le Dr. Chas. Richet, ancien interne des Hopitaux de Paris.

Richet has been before the public as an author only two years, and is less noted for the number of his productions than for their careful composition. This last work on the convolutions is his fourth monograph, and his articles, which are not numerous, appeared in the *Journal de l'Anatomie et de la Physiologie*, *Revue Philosophique* and *Revue des Deux Mondes*.

He begins his treatise with the structure of the convolutions, and compresses it historically into:

1. That probably Malpighi discovered the cells and nerve-fibers of the cerebral cortex.
2. That Vicq d'Azyr and Baillarger have well described the structure of the convolutions visible to the eye.
3. That the microscopic structure was made known by Meynert, Luys and Betz.

He enters somewhat into the morphology and intimate construction of the lobules, dwelling, as others do, upon the giant and pyramidal cells, and in a résumé enumerates the following as all the elements to be found in the gray cortex:

1. Pyramidal cells.
2. Giant cells.
3. Myelocytes.
4. Fusiform cells.
5. Amorphous nerve substance.
6. Fibrillary nerve prolongations.
7. The vessels with their lymphatic sheaths.

He divides the layers of the cortex into:

1. External limiting.
2. Compact pyramidal.
3. Layer ammonis.
4. Granular layer.
5. Claustral layers, superficial and profound.

And attempts, with these divisions as typical of all, to find analogous relationships with the gray substances of the cerebellum, retina, olfactory lobe, etc.

The vascular supply, as detailed by Duret, Gerlach and Ruysch, is mentioned, but Huebner's labors are scarcely noticed.

He thinks authors have paid too much attention to the morphological, and too little to the structural, development of the lobules, and claims that the first fissure to appear in the foetus is not that of Sylvius or Rolando, but the fissura occipitalis (external perpendicular). The plates of Gratiolet and Leuret would indicate otherwise. In treating of the circulation of the convolutions, his discussion of the connection between the encephalic circulation and that of the iris shows that he has not investigated that subject as completely as has Gradle, of Chicago, who

published his researches in the April and July numbers of the *Journal of Nervous and Mental Disease*, 1875.

Ferrier is not a favorite of Richet's, as he not only ignores very much of that investigator's deductions, but makes light of them. He seems fond of Flourens, and calls Munck puerile.

Impressed with the sanctity of the Cartesian doubt, he refrains from theorizing or allowing any one else to do so, but at the bottom of his system there lurks a consistent thread, affording us an idea that Richet has his theory, nevertheless, and finds it so different from what other authors believe in that he is unwilling to announce it.

The incompleteness of his book is not due so much to any remissness on the author's part as to the lack of information of a precise nature for the completion of any such work. Richet is conscientious, and would not knowingly be guilty of distortions or crudities. He concludes by saying that "discouragements are unjustifiable, for each day brings progress, and the moment will come,—perhaps is near at hand,—when the functions of the convolution,—that is to say, intelligence,—will be understood, as are the functions of the heart, the muscles and the blood." s. v. c.

ATLAS OF THE PATHOLOGICAL ANATOMY OF THE EYE-BALL. By Dr. Hermann Pagenstecher, of Wiesbaden, and Dr. Charles Geuth, of Langenschwalbach. The text translated into English by W. R. Gowers, M.D., of London. Thirty-eight plates engraved on copper.

The abundant contributions to the literature of ophthalmology, after Helmholtz gave us the ophthalmoscope, seemed to leave little of this once unknown field uninvestigated within the first score of years after that discovery; but the appearance of this work, embodying the information gained from examination of eight hundred diseased eyes, nearly all of which were removed during life, shows that all knowledge of the subject had not yet been exhausted.

The work is valuable as giving the changes that take place in the primary, uncomplicated affections of that organ, as well as of those that have been still further changed by additional complications.

The effort to present in many of the plates the natural size of the eye will aid in investigations with the ophthalmoscope by those somewhat unfamiliar with such examination, and where the subject can be better and more fully illustrated by magnifying the representations, such increase of size has been made.

Regarding the text accompanying the plates, the authors say they "have kept it purely objective, describing only the condition before them, and endeavoring to exclude from it both their own views and the influence of prevailing theories."

The illustrations have been classified under the four following heads, viz:

- I. Pathological alterations of the anterior segment of the eye-ball.
- II. Pathological changes of the choroid.

III. Pathological changes of the retina.

IV. Pathological changes of the intraocular end of the optic nerve.

The authors admit the difficulty of a classification that would prove satisfactory in all respects, and they adopted this as seeming to them to best exhibit the less understood portions of pathology of the eye, and enabling them to exclude many of the more superficial affections.

The original text in German and the English translation being placed side by side will make the work serve the convenience of a larger number of persons than if given in either language alone.

The illustrations from copper plates are executed so clearly and so beautifully that it can be truly said they satisfy.

S. J. J.

THE DISEASES OF WOMEN. By Alfred Lewis Galabin, A.M., M.D. Sixty-three illustrations. Philadelphia: Lindsay and Blakiston. Chicago: Jansen, McClurg & Co.

After the manner of most English and European writers on this subject, the author has copied largely from American authors; but unfortunately for the success of his book, he has copied the errors.

Uterine pathology and therapeutics are to-day undergoing marked changes, changes which render even the literature of late years worthless or unreliable. It is, therefore, an unfortunate time for compilers and abstractors. While gynæcology is in this state of transition the profession will expect original works. This book is a creditable representation of the gynæcology of the last decade, and will, therefore require no extensive review. The author copies a cut from Barnes in illustration of erosion of the cervix, which he would have employed to illustrate laceration of the cervix had he given the subject the least attention, which he has not, if we except a short paragraph which is covered up under the volume of a long chapter on that questionable entity chronic "inflammation." For that part relating to cancer the author is entitled to a large measure of credit; but for reasons already given, the book, as a whole, can never succeed.

LA TRÉPANATION GUIDÉE PAR LES LOCALIZATIONS CÉRÉBRALES. Par le Dr. Just Lucas Championnière Paris.

This is an application of the recent discoveries in localization of functions in the cerebrum to the matter of trephining. For example, where there is paralysis of the leg, and the treatment indicated, the trephine may be applied over the lobulus Rolandicus anterior; if arm and leg both implicated, over the summit of the sulcus Rolando; where the arm alone is paralyzed, over the middle of the lobulus Rolandicus anterior; of the arm, with aphasia, over the gyrus operculum; facial paralysis, over the lower third of the last mentioned lobule and root of lobulus frontalis medius; aphasia, root of the lobulus frontalis inferior. He probably means gyrus operculum in aphasia, instead of inferior frontal convolution. The French

designations we translate into Latin by Pansch's system, as modified by Clevenger, detailed in the October number of the Journal of Nervous and Mental Diseases. Although Champonnière admits that extensive destruction of the cerebrum and its enveloping bones and membranes contraindicate the use of the trephine, and that effusion may produce phenomena localized in points distant from the original lesion, he lauds the harmlessness of the instrument under the antiseptic treatment *properly carried out*, and even advocates repeated reapplications where the search has at first been unsuccessful.

DISEASES OF THE STOMACH; THE VARIETIES OF DYSPEPSIA, THEIR DIAGNOSIS AND TREATMENT. By S. O. Habershon, M.D., London. Third Edition. Lindsay and Blakiston. 1879.

Many favorable things may be said of this book. Its author draws his conclusions from an extensive experience. He gives proper prominence to the neurological considerations so commonly neglected. The part relative to care of infants, although appropriate to a hygienic treatise, is not out of place, since the stomach is of primary importance, and its relations to the vegetative functions so intimate. Chapter V seems to be wrongly entitled "General Treatment of Disease of the Stomach," for it seems to be a recapitulation of the causes of the disease. Literary treatment of the subject doubtless was meant.

The book contains so many excellences that we regret having occasion to mention the omission of any allusion to the benefits derivable from physiological rest in gastric troubles. Flint, sr., and others, by introducing foods and medicines into the system, in such cases, otherwise than by the stomach, have demonstrated the value of this method.

REFERENCE AND DOSE BOOK. C. Henri Leonard. Twenty-third thousand. Detroit, Mich.

This little book is well enough known to students and practitioners to make any extensive description of it unnecessary.

BOOKS AND PAMPHLETS RECEIVED.

U. S. MARINE HOSPITAL SERVICE. Reports 1873, 1874, 1875, 1876, 1877, and Nomenclature of Diseases.

SAMUEL C. BARTLETT, D.D., LL.D., President Dartmouth College. Memorial Address on Edmund Randolph Peaslee, M.D., LL.D.

A. REEVES JACKSON, A.M., M.D. The Treatment of Sterility. From Vol. III, Gynæcological Transactions.

Laceration of the Cervix Uteri. From the Chicago Medical Journal and Examiner, August, 1879.

JOHN BARTLETT, M.D. Forty Cases of Tapeworm. From Chicago Medical Journal and Examiner, September, 1879.

JAMES NEVINS HYDE, A.M., M.D. Masturbation, Spermatorrhœa, and Impotence of Adolescence. From the Chicago Medical Journal and Examiner, May, 1879.

DEPARTMENT OF HEALTH, CITY OF CHICAGO. Report for the year 1878.

ELECTUS B. WARD, M.D. Physiological Antagonism the Therapeutic Law of Cure. From the Detroit Lancet.

E. INGALS, M.D. Report of the Special Committee on Medical Education before the Illinois State Medical Society, 1879. From the Chicago Medical Journal and Examiner.

SAMUEL J. JONES, A.M., M.D. Affections of the Lachrymal Apparatus.

Report on Otology, 1879.

The Present State of Otology, 1878.

The Present State of Ophthalmology, 1879.

Iritis and Some of its Dangers, 1877.

[The above five from the Transactions of the Illinois State Medical Society.]

Modifications of the Methods of Treating Chronic Non-Suppurative Inflammation of the Eustachian Tube and Middle Ear. From the Transactions of the International Medical Congress, 1876.

ROSSELL PARK, A.M., M.D. Maternal Impressions, Mothers' Marks; an Exposé of a Popular Fallacy. From the Southern Clinic, February, 1879.

Three Different Forms Acute Chronic Cardiac Disorders. From the Chicago Medical Journal and Examiner.

Dermatitis Venenata, or Rhus Toxicodendron and its Action. From the Archives of Dermatology, July, 1879.

C. HENRI LEONARD, M.D. Reference and Dose-Book. Physician's Day-Book.

THE AMERICAN ACADEMY OF MEDICINE.

[Reprinted from the Academy's Circular.]

This association of physicians was organized September, 1876, at Philadelphia, during the sessions of the International Medical Congress, when Traill Green, M.D., LL.D., of Easton, Pa., was elected its first president. Subsequently meetings were held in New York (1877), in Easton, Pa. (1878), and in New York (1879), at which Frank H. Hamilton, M.D., LL.D., of New York, Lewis H. Steiner, A.M., M.D., of Frederick, Md., and Frederick D. Lente, A.M., M.D., of New York, were respectively chosen as president.

The objects of the Academy are thus broadly stated in its Constitution:

First. To bring those who are alumni of classical, scientific, and medical schools into closer relations with each other;

Second. To encourage young men to pursue regular courses of study in classical or scientific institutions before entering upon the study of medicine;

Third. To extend the bounds of medical science, to elevate the profession, to relieve human suffering, and to prevent disease.

The Fellows of the Academy must be Alumni of respectable institutions of learning, who have received therefrom all of the following degrees:

1. The degree of Bachelor of Arts, after a systematic course of study, preparatory and collegiate;

2. The degree of Master of Arts in accordance with the usage of these institutions;

3. The degree of Doctor of Medicine, after a regular course of study, not less than three years, under the direction and instruction of preceptors and professors. They must have also had an experience of three years in the practice of medicine.

Candidates for fellowship must be recommended by at least one Fellow, and be approved by a majority of the Council, after which the consent, by ballot, of two-thirds of the Fellows present will secure their election.

The initiation fee is \$5, to be paid before initiation and registration.

Blank forms of application for fellowship can be obtained from the secretary.

RICHARD J. DUNGLISON, M.D., Secretary,
P. O. Box 2386, Philadelphia.

MM.. MARTIN and RICHET are experimenting on dogs with the view of supplanting blood transfusion with the intra-venous introduction of milk and sugar.

CORRESPONDENCE.

NEW YORK, October 8, 1879.

This metropolis having of late years become one of the medical centers of the United States, affords a great variety in all that pertains to medical affairs. The principal event within the past week appears to have been the dedication of the new wing of the Academy of Medicine, which occurred on the evening of October 3. The wing was christened "Library Hall." All New York was there, medically speaking, and many representatives from other cities as well as from foreign countries. There were Dr. Willard Parker, Dr. Austin Flint, Dr. James Anderson, Dr. John S. Billings, of Washington; Dr. Henry W. Acland, of the University of Oxford; Dr. Shattuck, of Boston, and others. The Hall is a new addition to the Academy, erected immediately in the rear of the old building, is the height of two stories and is for the purpose of accommodating the library, some 10,000 volumes or more, now a free library, as well as to afford more room for meetings. The acoustics of this new auditorium are said to be the finest in the Union. Upon the walls were hung oil paintings of many of New York's best and oldest physicians, living and dead. We noticed the familiar faces of Drs. J. W. Francis, A. C. Post, J. M. Smith, David Hosack, Valentine Mott, J. O. Stern, Isaac Wood, Alonzo Clark, A. H. Stevens, E. R. Peasley, Horace Green, Wm. Detmold, and a host of others. The portrait of Dr. Abram DuBois, by whose generosity this addition was made, occupied the most worthy place.

Prof. Fordyce Barker, the president of the Academy, conducted the dedicatory proceedings, and made a splendid address.

The president then donated to the Academy a bust of the distinguished ovariotomist of London, Dr. T. Spencer Wells, the work of Dr. Liebrich, also of London, who, in addition to an enviable reputation as an ophthalmologist, is an admirable worker in marble; and a chair and table for the president and desk for the use of the secretary. These last articles were in ebony.

Dr. Acland stated that the hospitals which he had visited in New York, Boston, Washington, Baltimore and Philadelphia were, in his estimation, about the best in the world. He deprecated the fact that there were so many men in this country licensed to practice medicine who had no right to a recognition as doctors. A list was being prepared in Great Britain of all physicians in Scotland, England and Ireland who had received a thorough education, and he hoped the same thing would be done in America.

The schools of medicine have all been opened with a flourish, and the usual amount of advice, admonition, etc., offered. Dr. John C. Draper, in his address before the University Medical College, expressed his views in regard to graded courses in medical studies. He was decidedly in favor of them, and his experience in connection with the university had convinced him of their value.

Prof. Thomas Hawkins, of the Columbia Veterinary College, a few evenings ago, made a very furious attack upon that distinguished humanitarian Mr. Bergh, in respect to his views upon and interference with vivisection. Mr. Bergh, in some respects, is a very useful member of society; but in others, to say the least, he is queer. Prof. Hawkins places him among "half-witted fools, enthusiasts, riders of hobbies, and narrow-minded, uneducated, uncultivated men." How is that for the beginning of a scientific address?

Mr. Bergh is well known as the president of the Society for the Prevention of Cruelty to Animals,

and in his way does a great deal of excellent work. When, however, he denies that Harvey discovered the circulation of the blood, and makes other equally startling assertions, he states that which every medical student has been taught to know to be untrue. When he attempts to put a veto upon vivisection, and says that science will be able to draw correct conclusions without its aid, he shows himself to be a fit person to become a subject of the emperor of the Flowery Kingdom. If I recollect correctly, I have been informed that dissections and vivisections are not permitted in China; their knowledge of anatomy and physiology can readily be estimated.

This outbreak, by the way, is nothing strange; it is an old trick with our friend. I have before me a little volume, entitled, "Experimentation on Animals as a means of Knowledge in Physiology, Pathology and Practical Medicine, by J. C. Dalton, M.D.," which was the outgrowth of an extensive movement on the part of the above-mentioned society for the Prevention of Cruelty to Animals several years ago. It seems that that society made a strong effort to have repealed from the act under which it was organized a clause excepting "properly conducted scientific experiments or investigations." This work contains the protest of eight different medical societies and a petition from the State Medical Society to the Honorable the Legislature of the State of New York, dated in 1867.

Among other things for which our city is celebrated is our old doctors. In one of our daily papers I noticed a list of seventeen physicians who began practicing fifty years ago or more, and by referring to the medical register I find that the dates of their graduation are stated correctly. The article continues: "Of these seventeen, fourteen are still in practice. These latter are John C. Adams, who was graduated from the College of Physicians and Surgeons in 1830; John Anderson, of the class of 1820, the same college; William Detmold, who was graduated at Gottingen, in 1830, and who is now professor of military surgery in the College of Physicians and Surgeons; Joel Foster, Jef. Medical College, Philadelphia, 1826; Samuel L. Griswold, Geneva, N. Y., 1829; George Lindsay, Edinburgh, 1825; Jared Linsly, College of Physicians and Surgeons, 1829; Willard Parker, Harvard Medical College, 1830; John O. Pond, Yale Medical College, 1829; Alfred C. Post, College of Physicians and Surgeons, 1827; Edwin G. Joseph, College of Physicians and Surgeons, 1830; Joseph W. Richards, same institution, 1825, and Ovid P. Wells, Williams College, medical department, 1829. Three of the seventeen are retired physicians. They are J. J. Abernethy, College of Physicians and Surgeons, 1828; Richard L. Morris, of the class of 1830, same college, and Albert Smith, of the class of 1820. Few cities can boast of so many grandfathers in the profession as this. It seems to me that some notice should be taken of the circumstance in recognition of their long and faithful services in the practice of their profession.

Dr. O'Sullivan, in a paper read before the Medico-Legal Society a few evenings since, called attention to the defects in ventilation of public buildings, and especially in Catholic churches. These churches, as is well known, are very often crowded to excess, and at early masses congregations quickly replace each other, so that time is not given to properly change the impure for pure and fresh atmosphere. He has no doubt that much sickness has its origin in this way, particularly from draughts coming through open windows upon the heads of the worshipers. He hoped the clergy and others would direct attention to this matter.

The New York Obstetrical Society has just issued

its first volume of transactions, embracing their deliberations from May 4, 1875, to December 15, 1878, inclusive. I regret that space forbids more than a mere mention of some of the most important topics discussed, namely, treatment of albuminuria in pregnancy; case of incision of the cervix uteri; case of congenital chlorosis or anematosi; successful case of gastric electrolysis; the insanities of females; laparotomy for extra uterine pregnancy of twenty-two months' duration; death following the use of the aspirator in ovarian tumors; successful ovariectomy during peritonitis following tapping; specimen of apoplexy of the left ovary from a girl who died of cerebro-spinal meningitis; pseudo-hypertrophy in a girl, and others. The volume is replete with suggestions of a practical nature.

As I am about to close this letter, a case occurs of so-called poison from the use of arsenic for the purpose of killing the nerve in a decayed tooth, death resulting. It is stated by good dental authority to be the first case of the kind known. In the certificate, the cause of death is stated to be "septicæmia from gangrene of the mouth and face, arising from treatment of a decayed tooth."

The patient was in Boston, and felt so badly that he called on a dentist for the treatment of his tooth. The dentist filled it with a rubber plug. The patient could not bear the pain, and the doctor then filled it with "something," and capped it. The "something," it should be stated, was inserted in the tooth on the 10th or 11th of September. The patient came to New York, arriving at his home in Brooklyn on the 12th. He was advised to call upon a dentist in this city, who states that he inserted only a little creosote. He then placed himself under the care of a physician, who first saw him on the 15th of September. He died twelve days after. The doctor gave the certificate as above, and the deceased was buried. Now the assertion is made that death was caused by arsenical poison, the arsenic being introduced into the system through the tooth.

The doctor's own account of the case is interesting. After being called to the bedside of the patient on the 15th of September, he "found that he was suffering profoundly from some cause. The right side of the face, and extending to the head, neck and throat, was swollen to nearly its utmost tension. The inflammation was of the most intense character, and a large portion of the cheek, which was about the center of the phlegmonous swelling, was of a very dark, slightly purplish brown color. The swollen tissues rendered the muscles of the face and jaw so rigid that it was impossible to open his mouth beyond a quarter of an inch, and it was with the greatest difficulty that he could swallow anything. After making these observations, I was informed that Mr. Gardner had, on the previous Thursday (September 10), been under treatment for a diseased tooth—the first lower molar on the right side; that immediately after the treatment he had come to Brooklyn, where he had been still further treated for this ailment. I learned that at this time whatever local application had been made by the Boston dentist had been removed, and a little creosote had been applied in its stead. I need not go into details here, but from the totality of the symptoms, I was more than strongly impressed that the case was the result of absorption of arsenious acid into the tissues of the face and mouth. Five days having elapsed, it was of little use to look for the original exciting cause. The absorption had taken place; the mischief had been done; phagedenic ulceration was then going on, and my first care was to endeavor to antidote or counteract these terrible effects. As the case went on, it became evident that this could not be

done. Gangrene and sloughing of the most formidable and malignant character ensued. While this local destruction was going on, the septicæmic poison was being absorbed, and the whole system became profoundly impressed with this secondary effect of the destroying cause. At first the smaller and then the larger veins were encroached upon, and as a result, successive hemorrhages of an increasingly dangerous nature ensued until the last one, which occurred a short time previous to, and which hastened, the final catastrophe."

Now, there are various opinions in regard to this case. Some surgeons, while declining to make a positive diagnosis, partly because there was no autopsy, incline to the belief that it was a malignant case of alveolar abscess; others, and they are among expert dentists, favor the arsenical poison theory. They say that the use of arsenic for the purpose of destroying nerves in teeth is a very dangerous practice, and is far too extensively followed. There appear to be two principal methods for its application: In the first "the operator takes a small wad of cotton (about the size of a pin head) and dips that into creosote, which may be tempered with morphine. He has a little bottle of the arsenical powder. He dips the saturated cotton into the bottle to lift up just a little of the arsenic. The hollow of the tooth having been previously cleaned and prepared, the wad is put into the same, covered with more cotton and capped." A second method appears to be by the introduction of the arsenical paste or the so-called "nerve paste." This consists, usually, of equal parts, by weight, of arsenious acid and sulphate of morphia, with creosote, Q. S., to form a paste. The quantity generally employed is about the size of a pin head; of course the amount of arsenic introduced into the system, either by an overflow of saliva or by absorption through the tooth, if that is possible, is exceedingly small indeed, when paste is used.

Not only does the Brooklyn dentist deny that he used arsenic, but I notice that the friends of the Boston dentist also deny the use of arsenic or any other substance which could cause death. He used a saturated solution of carbolic acid.

This case is therefore slightly mixed; and in view of the fact that it is to be the subject of investigation by the authorities, it is not well to comment too freely upon it; but if it is truly a case of "arsenical gangrene," it becomes an important question how far a dentist is justified in resorting to a remedy which seems to be so dangerous when employed in that locality; if it is not true, then it also becomes a question how far the press is justified in publishing broadcast so-called scientific information upon the first blush of the occurrence, the inevitable result of which is to frighten the community and shake the confidence of the people in the skill and care of those whom they trust in the time of their dire necessity. Of course the people have a right to know the sources and places of danger in the professions as well as in all other affairs of life; but all inferences of a scientific nature should be drawn from scientific facts. Here, for instance, is an instance of a formidable controversy being built upon the statement that "something" was placed in the tooth, and a conclusion drawn and published abroad without first inquiring what that "something" was.

Has the sphygmographic furor died away because the instrument is useless or because it is complicated?

LUBELSKY sprays ether over the epigastric region and spinal column to relieve the vomiting of pregnancy.

CLINICAL REPORTS.

Surgical Service of Dr. E. Andrews, Mercy Hospital.

BY E. C. HELM, M.D., HOUSE SURGEON.

Case I.—Oct. 13, 1879. A boy, aged ten, presented a congenital fissure of the palate, half an inch wide, extending through the soft and hard palate, the maxillary bone and the upper lip, causing the deformity known as hare-lip. Under ether, the following operation was performed: The mouth being kept open and the tongue depressed, by a gag devised by Prof. Andrews for the purpose (which has the advantage of being out of the operator's way), the alveolar process of the jaw was sawn through, just back of the left canine tooth; then, by gentle pressure, the fragment thus formed was forced into the gap, and held there by silver wire sutures. The edges of the lip were then pared, the incisions being concave in the center, so that the projections thus formed at the prolabial border would prevent the small depression that would otherwise exist at this point. The cut edges were then brought into apposition, and kept there by means of sutures and broad bands of adhesive plaster. In about ten days sutures removed; union perfect.

Case II.—Admitted Sept. 29, 1879. A child two and one half years of age. Fissure of the soft palate. The fissure, which completely divided the soft palate, was congenital. There was considerable loss of palatal tissue, thus making the gap very wide. September 30, ether being given and the gag inserted, Prof. Andrews pared the edges of the cleft, loosened the soft parts from their connection with the molar part of the gums. He then divided the pillars of the fauces to prevent the tension that would otherwise be brought to bear upon the sutures. The parts were brought into apposition, and maintained in position by means of four shotted silver wire sutures.

Oct. 2. Child very restless; considerable hemorrhage. Anodynes given.

Oct. 5. Very restless; cries and screams violently if any one except his mother approaches.

Oct. 10. The stitches had broken away, and the operation was unsuccessful.

Oct. 13. Repeated the operation, as above described, except that the pillars of the fauces were not divided.

Oct. 17. The sutures again cut out, leaving the upper part of the fissure open.

Oct. 21. Removed the sutures. The operation almost a complete failure.

Oct. 22. Discharged not cured.

Case III.—T. F., aged seventeen, entered Sept. 7, 1879. Amputation of leg. Thirty hours before entering, while walking along a railroad track, his foot caught, and before he could release it a passing engine tore the sole and heel of his shoe off, bruising the top of his foot, denuding it to the extent of 8 or 10 sq. in., destroying the dorsalis pedis artery, and producing an oblique fracture of the tibia just above the malleolus.

Upon admission, thirty hours after the injury, he was suffering from partial shock and great prostration. Operation was therefore postponed. The foot was placed in position by means of small pillows and blankets on either side. Hot bottles were applied and the foot was covered with cotton; cinchonid. and tr. ferri mur. were given.

Sept. 8. Wildly delirious; pulse very weak and feeble, 130; temp. 100.8° F. Soon became dull and stupid. Gave brandy, 3 ij every two hours, alternating with

R—Ammon. carb. gr. ij;
Spts. ammon. arom. 3 ss;
Ay. camph. 3 ss;
Aq. q. s. ad. 3 iv.—M.

He continued in about the same condition for two days, then slowly rallied. The foot was washed with a 2½ % solution of carbolic acid, and covered with cotton saturated with 8 % solution of carbolyzed oil. Artificial heat was continued for thirty-six hours, when it became evident that it was of no avail. The entire foot became gangrenous.

Sept. 15. Under ether, the leg was amputated, by the lateral flap operation, just above the ankle, the spicula of bone projecting from the upper fragment of the tibia cut off, and edges rounded. The flaps were then held in apposition by sutures and adhesive plaster. A drainage tube was inserted.

He continued to do well until Sept. 21, when the flaps separated, exposing the tibia to the extent of one inch. The wound then began to granulate rapidly.

Oct. 5. Discharged.

Nov. 1. Wound entirely healed, with the result of a useful leg.

Case IV.—*Painful stump, defying treatment.* A. W. German, aged forty-six; admitted June 21, 1879, with the following history: While at work in a zinc factory, forty weeks ago, his hand was caught in a zinc-roller, and slowly drawn in. He threw his other arm around a pillar, and being an exceedingly muscular man, he wrenched his arm from the roller, but not before the forearm and hand had been mangled and crushed. The arm was immediately amputated above the elbow. The stump healed rapidly, but he has ever since had a sensation as if the fingers of the lost hand were *strongly* and widely separated from one another, and were semi-flexed. This sensation is not only painful, but at times agonizing. The pain is intensified in stormy weather, but not usually severe at night. There has been exposure and necrosis of one half inch of the lower end of the humerus, which occurred about a month ago.

June 23. Under ether, the necrosed end of the humerus was removed, the cicatrix excised, the median, musculo-spiral and ulnar nerves were pulled down and about one half inch of each removed. The wound was then closed with adhesive straps, and dressed antiseptically.

June 24. Considerable fever. Gave cinchonid., tr. ferri cl. and tr. aconit.

June 27. Replaced tr. aconit. by potas. acet. and spts. mindereri, as urine was scanty.

June 28. Pain intense. Gave large and frequently repeated doses of dover's powder.

July 2. Pain not relieved.

July 7. Ether again administered, and about one inch of median and ulnar nerves were excised, and the musculo-spiral divided two inches from the extremity of the stump; but no relief was obtained, except that the pains did not shoot along the back of the hand as much as before.

July 14. Given a drachm of ammon. muriat. as an alternative, every day for three days, without relief.

July 17. As the patient came from a malarious region, large doses of quinine were given, also without success.

July 24–30. Given full doses of vin. colch. and tr. cimicifuga, but the pain continued.

July 31. Ether was again given, and the brachial plexus of nerves above the clavicle were exposed. About three-fourths of an inch was removed from each of the two cords as they pass the clavicle. The incision was then washed with a 2 % solution of carbolic acid, and closed with interrupted sutures. A cotton compress, tightly bandaged, was applied, and the patient was then kept under the influence of opium for two days.

Aug. 15. The pain has not lessened, though the incision has nearly united. As he was very plethoric,

directed magnesiæ sulph. 3 i to be taken every night for two weeks.

Sept. 2. Discharged with pain diminished.

Oct. 21. A letter just received states that the pains and cramping sensations in the severed arm and hand are as severe as they were before entering the hospital.

Medical Service of Drs. N. S. and F. H. Davis, Mercy Hospital.

BY H. M. STARKEY, M.D., HOUSE PHYSICIAN.

The following case is reported as typical of four cases seen in the hospital within a few months, in which, with cancer of the stomach, there was at no time any considerable vomiting:

M. H. Irish, age 70, carpenter, entered hospital February 10, 1879.

Four months ago he "noticed a hard lump in the stomach," and since that time food has caused distention of stomach and distress, but no nausea or vomiting. Has been steadily becoming weak and thin during past year. Emaciation and cancerous cachexia marked. Complaints of no pain except the distress after taking food. Examination shows a deep-seated tumor, tender but not painful, about the size of a walnut, just behind the tip of the ensiform appendix. Liver enlarged, other viscera normal. Emaciation continued, with constantly decreasing debility to ingest and digest food, and all the symptoms of cancer of the stomach, except vomiting, until death, which occurred April 30.

Autopsy, fifteen hours after death, showed a cancerous tumor about one and one-half inches (3.5 centimeters) in diameter, occupying the pyloric extremity of the stomach, and much contracting its orifice. Remainder of stomach normal, as are the other viscera, except the liver, which is much enlarged, and is almost entirely filled with cancerous deposits, from the size of an English walnut down. Microscopic examination confirmed the diagnosis of carcinoma.

The following is one of three recent cases of ascites without disease of heart, kidneys or liver.

Mrs. L., American, age 53, came to the city expecting to undergo ovariectomy, as the diagnosis of ovarian tumor had been confidently made. Thorough examination, by Drs. Davis and Andrews, showed general abdominal dropsy, but heart, liver and kidneys normal. Entered hospital August 11, 1879. Urine scanty but normal in quality, containing no albumen. Abdomen so distended with fluid as to cause much discomfort, and seriously to interfere with breathing. Given a teaspoonful of the following mixture four times a day:

R—Extracti galii, fl. 3 ij;
" jaborandi;
Tinct. digitalis, aa, ʒ ss;
Potass. nitratis, 3 ij.—M.

August 18. Fifteen drops additional extract jaborandi fl. added to the night dose. Under this treatment alone there was marked increase of urine, and more marked and constant decrease of the abdominal fluid until August 27, when patient left nearly well. Letters, September 15 and October 3, state that Mrs. L. has continued the use of the same medicines, and that the dropsy shows no tendency to return.

Ophthalmological Service of Dr. S. J. Jones, Mercy Hospital.

BY H. M. STARKEY, M.D., HOUSE PHYSICIAN.

Miss B. B., aged twenty years, in good health, entered the hospital with glaucoma of both eyes, of more than five years' duration. At the time of her admission to hospital there was considerable pain in

the right eye, and vision was greatly impaired. In the left eye there was no longer any pain, and entire absence of vision for the preceding year. There was great increase of tension of both balls—in the left almost stony hardness (+3). There was greatly diminished sensitiveness of the right cornea, and almost complete anæsthesia of the left one. The pupils were widely dilated, and the anterior chamber of each eye very shallow. The aqueous humor presented a very muddy appearance. The great tension of the left had produced thinning of the sclerotic coat around the cornea, so that the pigment of the choroid caused a purplish appearance at the sclero-corneal junction. In the right eye the appearance was very slight. In view of the fact that vision in the left eye was wholly lost, and the eye at times became very irritable, it was decided to enucleate that ball. The patient was anæsthetized, and the globe was removed by dividing the conjunctiva close to and entirely around the cornea. The cellular tissue was then freely divided, and the tendon of each of the recti and of the oblique muscles was detached from the eye-ball. Then any remaining portion of cellular tissue was detached down to the optic nerve, and a small instrument, being one blade of a small pair of forceps, similar to obstetric forceps, devised by Prof. Jones, especially for the enucleation of softened or atrophied eyes, was introduced and acted like a victis in drawing outward the eye-ball, so that by a pair of curved scissors the optic nerve was readily divided and the ball was turned out of its socket. The hemorrhage which followed was slight, and was easily controlled by placing a small sponge, wet with cold water, in the orbital cavity for a few moments. After removal of the sponge cold compresses only were placed on the lids. No subsequent hemorrhage occurred. The cut edges of the conjunctiva were not united by suture. There was scarcely any swelling of the eyelids; no suppuration occurred, and in five days the wound had healed. The operation, as thus performed, leaves the capsule with muscular attachments, which affords a good support for an artificial eye. Two weeks after the first operation the patient was again anæsthetized, and iridectomy was performed on the right eye. No unusual result followed; she made a good recovery; the eye became more comfortable; tension diminished, and sight had improved some, when she was discharged from the hospital, three weeks after the iridectomy was performed.

ORIGINAL CONTRIBUTIONS.

ABDOMINAL WOUNDS WITH PROTRUSION OF INTESTINES.

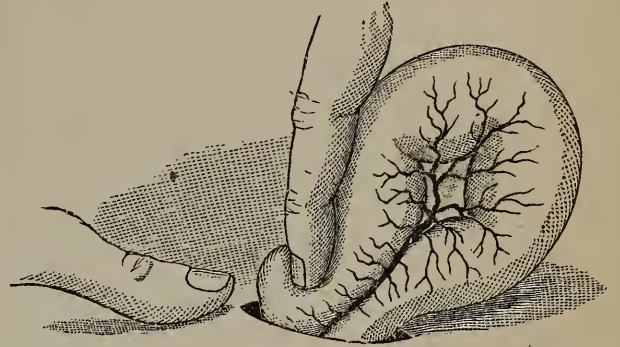
BY EDMUND ANDREWS, A.M., M.D.,

Professor of Surgery in the Chicago Medical College.

When a loop of intestine protrudes from a narrow wound, it often resists surprisingly the efforts to replace it in the abdomen. After the first step of squeezing back its contents the surgeon finds a limp and collapsed gut in his fingers, which he can neither coax nor thrust back through the contracted orifice. If he gathers it into a lump, it refuses to enter; if he tries to tuck it in little by little, his finger either slips in beside the viscus, carrying nothing with it, or takes along a fold only temporarily, and allows it to come out again as it is withdrawn. Well educated physicians have repeatedly been driven to abandon their cases to others by these difficulties. Yet they are not to blame, for they find in the text-books no adequate instructions about the necessary manipulations, but only directions to make such a free enlargement of the wound as greatly enhances the risk of an incurable

future hernia. Many practitioners will be glad to know of a simple manœuvre by which the whole difficulty can be overcome.

As the first step, of course, the gut must be well cleansed of adhering foreign substances, and next, its contents must be squeezed back into the abdomen.



This should be done gently, because the tissue is not very strong, and too much pressure on a distended loop may burst it. If the tightness of the contracted orifice resists this effort, then the precept of the text-books to enlarge the orifice may be carried out, but only to a very moderate extent. Having collapsed the loop, the surgeon places the end of the index finger (the nail being pared short and smooth) on the gut, about an inch from the orifice of the wound; he sinks the tip of the finger into the viscus in such a way as to cause a portion of its wall to fold up around it, as shown in the engraving. Now, if he gently press the finger through the wound, he will carry the gut with it, without a possibility of losing his hold. The next step is equally important. A thumb or finger of the opposite hand must be laid horizontally along the abdominal wall in the direction seen in the figure, and when the former finger is about to be withdrawn, the latter must be slipped up against it, and as it slowly comes out, pressed under its extremity, thus preventing the fold of intestine just carried in from escaping again. Repetitions of this manœuvre will soon return the whole intestine.

Of course judgment and sound sense must be employed in such matters. On the one hand, it is very desirable to diminish the risk of future hernia by reducing the protrusion through the smallest possible orifice; but if the latter is so very tight that the forcing of the gut through it will cause serious contusion or injury, the wound must be slightly but not too much enlarged. The discovery of these details in the manipulation of returning the gut has greatly diminished my perplexity in this kind of work, and I trust that it may prove equally useful to others.

No. 6 Sixteenth street, Chicago, Ill.

In the preparation of the present number the editor of the Gazette has received valuable assistance from Drs. S. V. Clevenger and H. M. Bannister.

M. BOUCHUT, of the Hôpital des Enfants, Paris, records three more cases in which fuchsin, or the hydro-chlorate of rosanilin, one and a half to three grains daily, has been employed with benefit in albuminuria.

DR. SINCLAIR COGHILL, in the British Medical Journal, relates his experience with nitrite of amyl in chloral poisoning. He obtained immediate and satisfactory antidotal effects, and attributes the death of his patient to want of accessory stimulation per anum.

LAPAROTOMY.

*Successful Removal of a Large Subserous Fibroid of the Uterus.**

BY T. GAILLARD THOMAS, M.D.

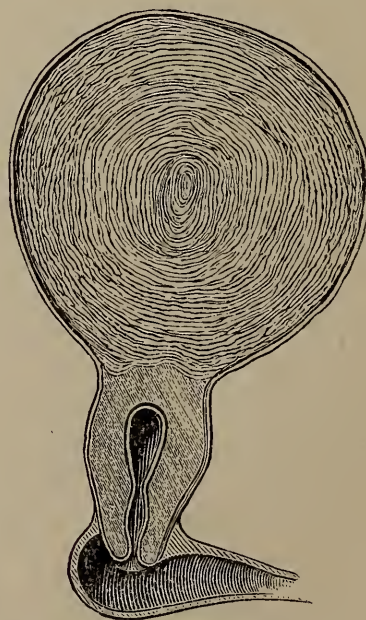
New York.

The case, of which a history is here given, came under my care in December, 1878. The patient was a native of Connecticut, had been under the care of several physicians of that state before I saw her, and was through the kindness of one of them entrusted to my hands. When, therefore, I was requested, at its conclusion, by Dr. R. W. Mathewson, of Durham, to present the history of the case to the Connecticut State Medical Society at its meeting in May, 1879, I appreciated the appropriateness of the suggestion, and cheerfully acquiesced in it.

Mrs. C., a multipara, aged 39 years, of spare habit, had enjoyed good health until 1873, when, after being violently kicked in the lower portion of the abdomen by a child of two years of age, she suffered for several hours severe pain, which was accompanied by a profuse leucorrhœal discharge for a few days. Four months after this she felt in the hypogastrium a hard mass about as large as a walnut. For this she consulted a physician, of Middletown, who regarded the case as one of anteversion, and treated it by replacement twice a week by the uterine sound. Great nervous disorder and menorrhagia soon developed, and the little mass rapidly grew. A consultation now being held, it was thought that pregnancy existed, and an attempt at the production of abortion was made. At that time the tumor was as large as a three months' pregnant uterus, was movable, and not painful, though tender upon pressure. Another physician was consulted, who made the diagnosis of uterine fibroid, but thought that little or nothing could be done in the way of treatment. Dr. Mathewson, the present attendant, was then employed. Two years after this time pregnancy occurred, and advanced to a happy issue. During lactation, after this, the tumor could not be felt, but on the recurrence of menstruation the mass appeared as large as a three months' pregnant uterus, and now, after a ride over a rough road, February 19, 1878, she suffered for some time from severe pains like those of colic. The growth of the tumor increased steadily, and abdominal dropsy supervened, which, by July, 1878, became so marked and so decidedly interfered with respiration that she consulted a physician of Boston with reference to the practice of electrolysis. He removed the abdominal fluid by aspiration, lessening the patient's weight thirty-two pounds. From this time to November 20, she was tapped or aspirated seven times, and one hundred and ninety-five pounds of fluid were thus removed, the physician from Boston preferring this course to operation, which he thought would prove almost necessarily fatal. Soon after this time Mrs. C., acting under the advice of Dr. R. W. Mathewson, determined to visit New York and place herself under my care. I saw her on the 8th of December, and found her in the following condition. The abdomen was somewhat larger than it usually is at the end of the ninth month of utero-gestation, and upon palpation a large amount of abdominal effusion could readily be detected with the existence of a hard, rotund mass rolling about within it. Conjoined manipulation showed this mass to be connected with the uterus, and I decided that it was a round fibroid, of subserous character, growing, probably, from the fundus. The depth of the uterine cavity I do not remember.

Although Mrs. C. was much emaciated and greatly enfeebled by repeated losses of serum by tapping, I advised in favor of laparotomy, upon the following grounds. First, a solid uterine tumor existed, which was beyond the reach of medicine, and which, having fully established ascites, would in all probability perpetuate this until death closed the scene. Second, the discomfort resulting from abdominal accumulation would surely require repeatedappings, and it needed no power of prophecy to tell what would be the end of such a course; and third, the remainder of her life would be necessarily an existence of suffering, while laparotomy might possibly result in complete recovery. These considerations being laid before Mrs. C., she unhesitatingly decided in favor of making one effort for life, even although it appeared to be a desperate one. As for myself, I never for an instant doubted what the line of duty was, where all looked so dark if operation were not decided upon, nor would an untoward issue have shaken my conclusion in the least.

On the 16th of December, at 3 P.M., laparotomy was performed, with the assistance of Drs. Hunter, Ward, Jones, Walker and E. Mathewson. An incision about six inches in length was carried through the median line from a point below the umbilicus to one a little above the symphysis pubis. As this passed through the peritoneum a very large amount of fluid escaped, and at once a large, round tumor presented itself to view. The surface of this presented a very peculiar appearance. Instead of looking like an ordinary fibroid, it was covered over thickly by a network of blood-vessels as large as the radial artery. These vessels did not belong to the tumor itself, but draped over it, and were slightly attached to its upper surface. They extended from the pelvic cavity upward toward the omentum. I was at a loss to account for them, and can only offer, by way of explanation, the suggestion that they developed in some false membranous expansion, which, being absorbed, had left them in the position just described. These vessels were tied with silk ligatures, not separately, but three or four together, on each side of the tumor, and then they were cut in two. The tumor was then lifted up by my assistants, and was found to be attached to the whole fundus uteri; indeed, it seemed to be an expansion upward of the uterus, as the accompanying diagram will show:



Estimating as well as I could the point at which the tumor began and the uterus ended,—for of this I could not be certain,—I passed a large mattress needle through, and left it in place. Then passing a

* Read before the Connecticut State Medical Society, May, 1879.

double ligature through just above this, of twisted silk, I tied the two halves of the penetrated uterine fundus very firmly, and cut the tumor off. How much of the uterine tissue was cut away I cannot say, but my impression is that as much was removed as could be taken without opening into the uterine cavity. The abdominal wound was then closed by silver suture, the uterus, which was penetrated by the large needle, being held as a pedicle between the lips of the wound, and an antiseptic dressing was applied. All pain was quieted by morphia, the patient ordered milk diet, and perfect quietude enjoined. At 7 P.M. on the day of operation hemorrhage occurred from the stump, but tightening the ligatures readily controlled this, and the patient went on to rapid and complete recovery. The operation being performed on December 16, on the 3d of January the patient was sitting up out of bed. At the end of a month she went to her home in Connecticut. Dr. Mathewson, writing on May 7, says "Mrs. C. remains well." The tumor was a good specimen of the uterine fibroid, or myoma. It was as large as the head of a child of two years of age, and weighed three and a half pounds. Its tissue was not very dense, but no cystic formations existed in it.

THE HOT-WATER VAGINAL DOUCHE.

Certain reasons why its use is generally followed by failure and disappointment.

BY E. C. DUDLEY, A.B., M.D., CHICAGO,
Former House Surgeon to the Woman's Hospital in the
State of New York.

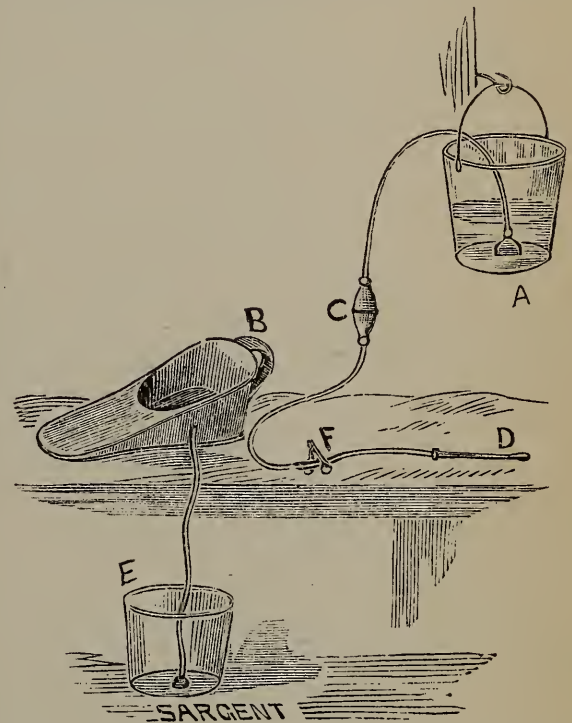
In uterine therapeutics the value of the hot-water vaginal douche is perhaps greater than that of all other topical applications combined, its use is perhaps more nearly universal; yet so inefficiently is it ordinarily applied, that in the large majority of cases it does little or no good. Ordinarily the choice of syringe, the frequency of the douche, the time and length of each application, the temperature of the water, the proper use of the bed-pan, the position of the patient, the persistence in long continuance of the douche, all essential to good results, have been ignored or neglected, if not by the patient, then, as is more frequent, by the doctor. Of such neglect, the legitimate results are failure and disappointment.

Emmet, who many years ago introduced the hot vaginal douche to the profession and predicted its success, directs that the Davidson's syringe be used, and says that its remittent current has an alterative influence which cannot be obtained from the constant current of the fountain syringe. This is probably true, but unfortunately the use of this syringe requires the aid of a nurse. It is in the majority of cases, therefore, ruled out, and we are thereby compelled to devise some other plan which the patient may employ without aid, or dispense with the douche entirely. It is a subject of regret that Dr. Emmet, in his recent work on the Principles and Practice of Gynecology, appears to rate the value of the constant current so low that relatively it seems of little account when compared with the remittent current of the Davidson or other valvular syringes which the majority of patients either will not or cannot employ.

All patients, including Emmet's, at the Woman's Hospital, in the State of New York, are treated with the constant current douche, with satisfactory results, and what is true at the Woman's Hospital may be true elsewhere. The fountain syringe, quite generally used for the vaginal douche, requires no assistant, and is easily managed by the patient, but it is nearly useless, since, on account of its small size, it requires refilling several times during each application. The

common bed-pan is open to a similar objection, since it requires to be emptied several times during each application.

The accompanying diagram shows a device known as Lord's* douche, which is free from both of these objections. It consists of a bucket A, suspended on a hook about four feet above a couch, on which rests the bed-pan B. This bucket should be large enough to hold two or three gallons of water; a soft rubber syphon, A, C, F, D, having at A a weight heavy enough to retain that end of the syphon in the bottom of the bucket A, an ordinary soft rubber syringe bulb at C, a device for shutting off the current at F, and a female syringe tube at D. Another rubber tube is attached to an opening in the bed-pan and leads to another bucket E.



Directions.—The bucket A to be filled with water of the proper temperature and the shut-off at F closed, the patient to be placed upon the bed-pan in the proper position, the tube D to be inserted into the vagina as far as it will pass, the bulb C to be compressed once or twice and the shut-off F opened. Then the water will flow through the syphon without compression of the bulb, fill the vagina, overflow into the bed-pan and pass thence into the bucket on the floor below. Commonly, it may be more convenient to place bucket A upon a shelf than to suspend it. The couch should be of some unyielding material, otherwise the bed-pan will settle so low as to prevent the drain of water into bucket E. The essential features of this device are mainly indicated in a disconnected manner in Emmet's Principles and Practice of Gynecology, but to Dr. Lord is due the credit of giving it more practical form.

The following is designed to impress the importance of strict observance of detail in the application of the douche, since in no other manner will its good effects be realized:

Ordinary method of application.

I.

Ordinarily the douche is applied with the patient in the sitting position.

Proper method of application.

I.

It should invariably be given with the patient lying on the back, with

* Dr. F. H. Lord, Plano, Illinois. This engraving is furnished by Messrs. E. H. Sargent & Co., Chicago.

ture so that the injected water cannot fill the vagina and bathe the cervix uteri, but on the contrary returns along the tube of the syringe as fast as it flows in.

II.

The patient is seldom impressed with the importance of regularity in its administration.

III.

The temperature is ordinarily not specified or heeded.

IV.

Ordinarily the patient abandons its use after a short time.

The sitting posture is especially objectionable for another reason. It favors pelvic congestion by force of gravity, while the dorsal position utilizes this force during the application of the douche.

A satisfactory substitute for the bed-pan may be made as follows: Place two chairs at the side of an ordinary bed with space enough between them to admit the lower bucket; place a large pillow at the extreme side of the bed nearest the chairs, spread an ordinary rubber sheet over the pillow so that one end of the sheet may fall into the bucket below in the form of a trough. The douche may then be given with the patient's hips resting on the pillow and with one foot on each chair; the water will then find its way along the rubber trough into the bucket below.

the shoulders low, the knees drawn up and the hips elevated on a bed-pan, so that the outlet of the vagina may be above every other part of it. Then the vagina will be kept continually overflowing while the douche is being given.

II.

It should be given at least twice every day, morning and evening, and generally the length of each application should not be less than twenty minutes.

III.

The temperature should be as high as the patient can endure without distress. It may be increased from day to day, from 100° or 105° to 115° or 120° Fahr.

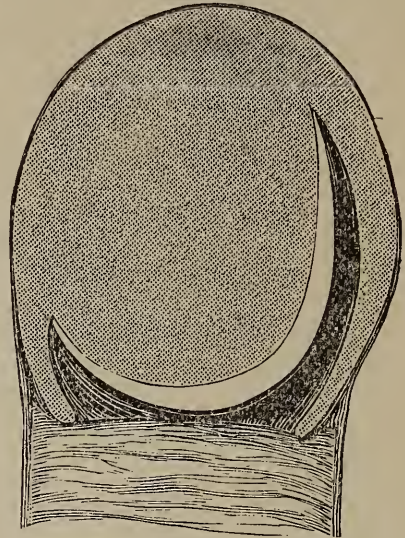
IV.

Its use, in the majority of cases, should be continued for months at least, and sometimes for two or three years. Perseverance is of prime importance.

attachments were plainly distinguished from the fundus and sides of the uterus down to within an inch of the external os on the right side, and slightly less on the left side, completely filling the womb.

June 1st, a consultation with Dr. T. G. Thomas resulted in a decision to operate for the removal of the tumor, and on the 8th of that month the operation was performed by him in Jersey City, in presence of Drs. Cottman, Cropper, Jones and myself.

The patient having been etherized, a full examination showed the attachments of the tumor to be as shown in the accompanying diagram.



Having ascertained this by means of an elastic probe, the operator cut the cervix with scissors to the vaginal junction, seized the tumor with vulsellum forceps, and by successive sweeps of the spoon-saw soon detached it entirely from the uterine walls.

But now, so great was the size of the neoplasm, considerable difficulty attended its delivery through the os, even in its severed condition. Before this could be accomplished two or three other sections had to be made, when, by powerful traction, it was drawn into the vagina. When it reached the perineum and distended it, superficial section of that part had likewise to be practiced before it could be delivered. Examination after this showed that the mucous membrane of the vaginal canal had, in several places, yielded under the great distention to which it had been exposed, but nowhere had any serious injury been done.

The tumor was a hard and almost spherical fibroid. It measured, in its shorter circumference, nine inches, and in its longer, nine and a half inches.

It will readily be appreciated how the passage of a tumor of this size through the vagina, which had been undistended by its presence prior to operation, would be attended by much greater difficulty and danger than that of a growth which had been contained there and had accomplished gradual distention.

During the operation the patient's condition was excellent, the pulse and facies showing no signs of constitutional depression.

June 8th. After the operation the patient recovered without delay, complaining of nothing. At 9 P.M. her pulse was 120, temperature 101°. Passed the night comfortably; slept considerably.

June 9th, 10 A.M. Pulse 120, temperature 102°. Feels very well, only weak. No pain. Urine passed freely and without effort. 10 P.M., pulse 110, temp. 101°.

June 10th, A.M. Pulse 110, temp. 101°. 10 P.M., pulse, 110, temp. 100°.

June 11th, 10 A.M. Pulse 110, temp. 100°. Odor of decomposition very marked, and the tampon, in-

A LARGE SUBMUCOUS UTERINE FIBROID REMOVED BY THE SPOON-SAW.

BY D. L. REEVE, M.D.
Jersey City, N. J.

Mrs. G., aged forty-nine; married thirty years; weight, one hundred pounds. Always well until January, 1878, when she noticed menstrual discharge profuse and weakening. In April, 1878, I was summoned to attend her for "fainting spells." It was the time of her menstrual flow, and such a volume of blood was lost as to produce syncope. I found it necessary to tampon the vagina and thus check the hemorrhage. In a few days thereafter a physical examination revealed a tumor in the uterus, attached apparently to the fundus, about the size of a pullet's egg. Os seemed healthy and characteristic of multiparæ.

The growth slowly increased in size, the hemorrhages of monthly recurrence, requiring a tampon in the vagina, until January, 1879, when the os began to assume a constantly increasing dilatation, through which, especially at the menstrual epoch, could be plainly felt a smooth, rounded, very hard body, whose

serted into the womb at time of operation, was withdrawn piecemeal, it being retained by the contraction of the uterus, a slight amount ($\frac{3}{4}$ ss) of putrescent sero-purulent fluid following its removal. The cavity was thoroughly washed out with a 5% solution of carbolic acid, and a napkin, saturated with the same fluid, placed over the genitals. 10 P.M., pulse 100, temp. 100°.

June 12th. Ordered an injection into the bowel, which resulted in natural, painless passage, and patient entirely comfortable. Uterus and vagina thoroughly washed out night and morning.

On the twelfth day following the operation pulse and temperature were normal, and on the eighteenth day the patient sat in a chair and was entirely comfortable. During her rest in bed the patient was freely supplied with food, principally liquid, and actually gained considerable flesh.

To-day, June 30th. Patient going about the house; pulse and temperature normal. There is a barely perceptible discharge from the uterus, requiring no especial attention. Is feeling well, and contemplates a trip to the country with her family next week. Discharged.

STRABISMUS.

Its Nature, Causes, Effects and Remedy.

BY S. J. JONES, A.M., M.D.,

Professor of Ophthalmology and Otology in the Chicago Medical College.

The want of harmonious action of the muscles of the eye-balls, variously known as squinting; turning of the eyes; a cast in the eyes, etc., has assumed a new interest to the patient and to the medical profession since the investigations of the late Von Graefe, of Berlin, regarding the physiological action of the muscles of the eye-ball, and of Donder's, of Utrecht, concerning the normal and abnormal refraction of the eye. Prior to the time of their work in this field, there was such uncertainty as to the results of operations for the relief of this deformity, that the frequency of their failure to secure the effect sought led many persons so affected to bear with their affliction rather than to have an operation performed for its relief, and to take the chances of failure, or of a resulting condition that seemed to them equally objectionable. After the intimate relation existing between this affection and errors of refraction and defects of accommodation was fully established, it could readily be seen why so many of the previously unsatisfactory cases had occurred, and how more satisfactory results could be secured by studying more carefully the conditions which produced this wrong position of the eye as their consequence, and seeking to remove both cause and effect.

Turning of the eye may be either inward (convergent) or outward (divergent) strabismus, or the rare defect of turning upward, called strabismus sursumvergens, or downward, called deorsumvergens; it may be on one side only (monolateral), or on both sides (double); it may be alternating or periodic; it may be constant.

Von Graefe gave the name concomitant strabismus to that condition of the squinting eye in which it follows all movements of the other or non-squinting eye.

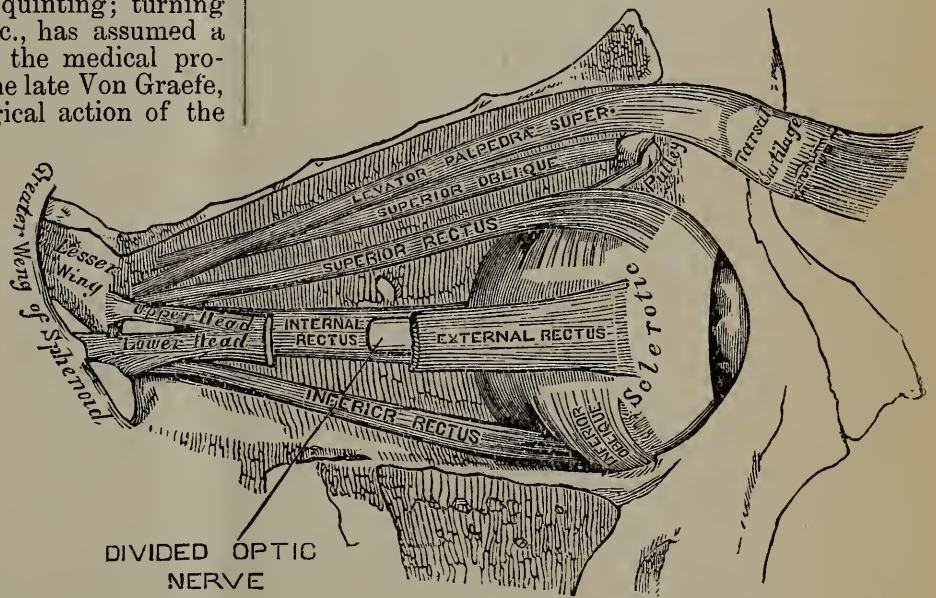
Apparent strabismus occurs in looking at objects at

a very near point when the optic axis and the visual line do not coincide, as demonstrated by Helmholtz.

The causes of strabismus are both predisposing or remote, and immediate or active.

Predisposing causes are: abnormally shaped eye-balls; errors of refraction; defects of accommodation; opacities in the axis of vision—varying from a slight nebulous condition of the cornea to complete opacity of the crystalline lens, as in cataract—or total loss of sight, as in atrophy of the optic nerve. Where hypermetropia exists in an eye, or there is partial impairment of normal acuteness of vision, or defective accommodation—making it difficult to cause the axes of vision to coincide,—a sustained effort to force such coincidence results in excessive action of the internal rectus muscle, which produces hypertrophy of it, and consequent convergent strabismus, which usually occurs early in life, as when children begin to fix their eyes upon a near point, continuously, for a long time, in the prosecution of their studies; but if myopia exist, such efforts, to cause the axes of vision to coincide, are soon found to be ineffectual, and that double vision occurs. To escape this double vision, one eye is allowed to turn off, which produces divergent strabismus, which generally occurs later in life than convergent.

The immediate cause of squinting is abnormal action of one or more of the recti muscles, resulting from numerous conditions, as hypertrophy, with actual or seeming shortening of one muscle, or debility, from continued over stretching, or paralysis, more or less complete, from the many causes which can produce such paralysis.



MUSCLES OF THE EYE-BALL — After Gray.

That there is often an inherited tendency to the occurrence of strabismus, must be patent to even a casual observer.

It occurs also in some cases of muscular insufficiency, showing itself only periodically, when the person is debilitated or fatigued, or when under unusual excitement, or in diminished accommodative power, such as follows diphtheria or whooping-cough.

In cases where it has been popularly supposed that by imitating others, children become similarly affected, examination of the child's eye will generally show the existence in it of some error of refraction, which is at least a predisposing cause of its turning.

The effects of strabismus are, also, both immediate and remote.

At first the affection produces deformity and double vision. The latter—whether the two images are on

the same plane or on different ones—is confusing, until repeated effort makes it possible to disregard the second image. This leads to impairment of sight in the squinting eye, both from disuse and from the fact that the image in the squinting eye is formed on some other and less sensitive part of the retina than the macula lutea.

Hence it will be seen that loss of sight—partial or total—may produce strabismus, and that strabismus, in turn, may result in impairment of vision, or, in extreme cases, in almost entire loss of sight.

The method of relief must vary with the cause or causes which produce the trouble, seeking first to remove any cause which may still exist, and which tends to produce or protract the trouble, and next, to remedy the consequences of such cause or causes, as the existing state may seem to require.

The adjustment of prismatic glasses to change the direction of the rays of light entering the eye is serviceable in certain slight cases, where by exercising both sight and muscles of the affected eye, as suggested by Javal, necessity for operation may be obviated. As the abnormal position results from excessive action of one muscle, or from defective action of its antagonizing muscle, or from both, the most natural, and most desirable, course would seem to be to endeavor to bring up the strength of the debilitated muscle to the standard of the stronger one; but as this, in many cases, is found to be impracticable, an opposite course must generally be pursued, of bringing down the strength of the stronger muscle to the standard of the weaker one; and this is usually the object in view in tenotomy for relief of strabismus.

By dividing a tendon from the eye-ball, and allowing it to grow fast at a point farther back on the ball, the muscle is practically lengthened, thus diminishing its power, and equalizing the action of those two antagonizing muscles.

In the form of strabismus called concomitant, with vision equal in both eyes, this is usually sufficient—with proper subsequent exercising of the muscles from side to side—to secure a satisfactory result. In other cases, attended with complications, a different procedure is frequently found to be necessary.

If the inharmonious action is found to be dependent on paralysis that has been produced by some cause that can be removed, as effusion of blood or from a blow, whose effects speedily disappear, the case may require only such treatment as will tend to hasten the removal of the cause of this temporary disturbance.

If abnormal growth produces the paralysis by pressure, the effect could only be expected to disappear after the removal of the cause.

If the turning be a result of some central nervous lesion, of which paralysis is but one peripheral manifestation, the prognosis would be unfavorable; and, if tenotomy should be deemed at all justifiable, an operation would have for its object a shortening of the defective muscle, instead of lengthening its antagonist. This may be done by dividing the tendon and drawing it farther forward toward the cornea, and there securing it by stitches and keeping the eyes at rest, in a proper position, until union could be effected.

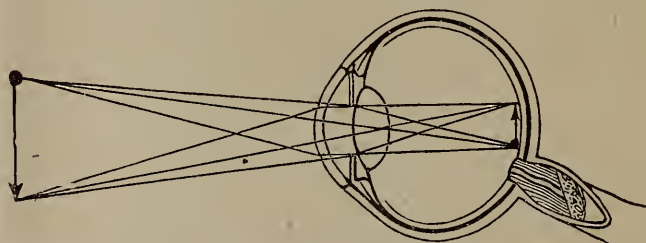
The same operation (called advancing the muscle) is performed where one muscle is much debilitated from over-stretching of long duration, but not actually paralyzed. The stronger antagonizing muscle may be divided or not, at the same time, as may seem to be indicated by the facts of the case.

In case of convergent strabismus, if only one eye is affected, and that deviates three or more lines from its normal position, it will be found that division of the internal rectus of each eye will result more satisfactorily than if only the squinting eye should be operated on.

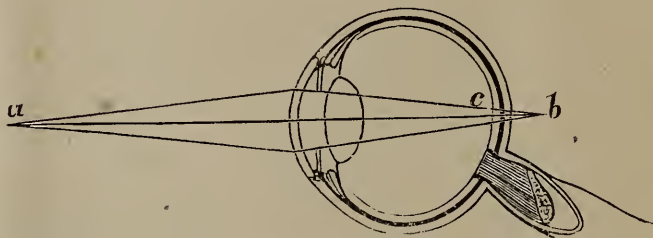
Where it is desired to increase the effect upon the squinting eye, in addition to the tenotomy, free dissection of the sub-conjunctival cellular tissue will be found to give more freedom of movement to the eye-ball.

The popular dread that the eye operated on will turn in the opposite direction is not often realized, and should not occur if reasonable care be exercised in the treatment of the case; but if, from any cause, such an accident should happen, the divided tendon may be again detached and advanced, and secured by stitches until union should take place, and the difficulty be overcome. This mode of remedying such accident would be found to be better than dividing the tendon of the antagonizing muscle.

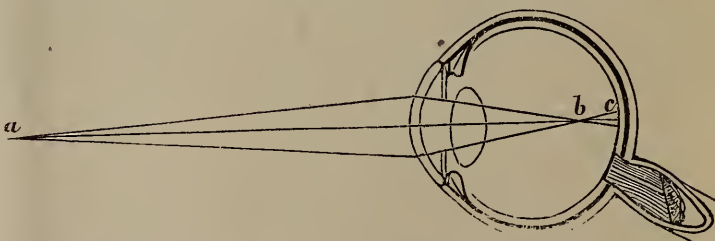
If an error of refraction exists with convergent strabismus, it is nearly always hypermetropia, and should be corrected by the adjustment of convex spherical glasses of proper power. In divergent strabismus such error is usually myopia, and requires for its correction concave spherical glasses.



NORMAL REFRACTION OF THE EYE.
(Horizontal section of the right eye.)



REFRACTION IN A HYPERMETROPIC OR FAR-SIGHTED EYE.



REFRACTION IN A MYOPIC OR NEAR-SIGHTED EYE.

Defects of accommodation are frequently temporary in character, and may be relieved by tonics, local and general. Calabar bean, showering the eye with fine spray of cold water, and galvanism, are efficient aids in overcoming this, as one of the causes of intermittent strabismus.

The time for operation is at the earliest practicable date after the turning occurs, even in children, if it be decided that an operation will be required at all. The operation may be repeated at a later date, if the first should fail to accomplish all that is required.

The longer the inharmonious muscular action continues, the greater becomes the difference in the strength of the muscles; the more the parts become accustomed to the altered condition, and the more difficulty there is in securing a satisfactory result. The semilunar cartilage in time becomes changed in shape, to adapt itself to the malposition of the squinting eye-ball, and thus becomes an im-

pediment to the return of the eye to its natural position, after division of the tendon.

Since it sometimes becomes necessary to repeat the tenotomy, it is well to delay a second operation until after the lapse of sufficient time to determine certainly that a second one is advisable.

The after-treatment is quite as important as the operation,—a fact that cannot be too strongly impressed upon the patient or the friends of the young patient. No dressing of the eye is required, if no complication should exist or arise. The application of cold to the eyelids limits hemorrhage beneath the conjunctiva, and hastens absorption of the blood, which makes the eye appear unsightly to others for a time after an operation. Systematic exercising of the muscles should be persisted in for months, which will cause the eye to continue to improve in its movements and position. Such care is just as important here to secure the best attainable result as it is in tenotomy for the relief of club-foot.

Prognosis is favorable from operation when vision is the same in both eyes, and when the strabismus is constant—not intermittent. Much of the disrepute into which the operation for this deformity had once fallen resulted from the imperfect knowledge of the nature and causes of strabismus, and from the fact that the performance of the merely mechanical part of it is not difficult. This led too many to operate, without due discrimination as to the cases appropriate for operation, and also from the supposition that division of the tendon was all that was required to secure the desired end.

Now, however, that the theory of strabismus is better understood, and proper steps are taken to secure satisfactory results, both immediate and permanent, the operation, which until recently had come to be regarded with disfavor, is now one of the most satisfactory in ophthalmic surgery, and, when the result is favorable, the gratification to the patient is secondary only to that following successful operations for cataract, or restoration of sight by iridectomy, in case of occlusion of the pupils.

Recurrence of the strabismus is probable, if the causes which produced it in the first instance are not removed—a precaution that should always be taken.

The mode of operating for the relief of squint is to divide the tendon of the muscle on the squinting side at some point between the muscle and the attachment of its tendon to the sclerotica, the point of division being determined by the amount of turning of the eye, the rule being that the less the turning of the eye, the nearer its attachment the tendon should be divided, and the greater the squint, the nearer the muscle the division should be.

The modifications of the method of dividing the tendon or tendons are very varied, being determined by different conditions of the eyes, or personal fancies of the operators, or both. A vertical incision through the conjunctiva, over the point of attachment of the tendon of the muscle, is the easiest method of reaching the tendon, but if the case be convergent strabismus, there is danger of the caruncle becoming so depressed that it may not properly aid in directing the tears into the puncta lachrymalia, and a depressed position is somewhat unsightly. By introducing sutures after the operation, to unite the cut edges, this falling of the caruncle may to a great extent be prevented. In dividing the external rectus no such objection to a vertical incision exists.

It is claimed that making an oblique incision over the internal rectus will combine the advantages of reaching the tendon easily; of preventing falling of the caruncle, and also obviate the necessity of sutures in the conjunctiva. By making a horizontal incision in the conjunctiva, along the lower edge of the rectus

muscle to be divided, the tendon may be cut by what is practically a subcutaneous operation, which is somewhat more difficult, and requires a little more time for its performance, but it usually leaves less deformity of the parts to give evidence of an operation having been performed, and requires no stitches.

THE RELATION OF THE STATE TO THE INDIVIDUAL, IN MATTERS PERTAINING TO SANITARY ADMINISTRATION.

BY OSCAR C. DEWOLF, A.M., M.D.

Commissioner of Health, Chicago.

[Read before the Chicago Medical Society, October 6, 1879.]

In a country like ours, where government interference with supposed personal rights is always sure to be sharply questioned, and where, happily, the enforcement of such interference is impossible, unless the public opinion of its usefulness has approached to conviction, it becomes necessary for the official to appear before that public to justify and defend his judgment and his acts. It generally happens in our neighborhood that the officer especially charged with the function of sanitary administration has received a medical education, and unless he commands the large confidence of his professional brethren, with whose labors his own come in constant contact, he will most certainly fail. The medical profession, therefore, is *my* public; for to it, as a body of specially educated men, should be committed the final adjustment of all questions touching the necessity or propriety of sanitary measures. Sanitary work, at best, is beset with antagonisms and obstacles of a peculiar nature, and perhaps nowhere more so than in our own city of Chicago. One generation of men have not yet passed away since our site was only known as a trading-post on the Indian frontier, and on this quagmire 500,000 people now find prosperous and salubrious homes. A few years since the burden of sanitary administration here was resting upon the shoulders of a board of health, composed of five members; in later years the responsibilities of the office have been transferred to a single individual. The commissioner of health should, and does, invite the assistance and criticism of every medical gentleman in the city; but is it too much to ask that this criticism should be something else than misrepresentation?*

*As a sample of critical statement the following facts may be of interest. The Fifth Annual Session of the American Public Health Association was held in Chicago, September 25-28, 1877. That distinguished sanitarian, Dr. Elisha Harris, of New York,—president of the association,—in a report of the meeting, published in the *Sanitarian*, November, 1877, says, speaking of a visit to the stock-yards: "The stock-yards and flesh-food packing of that largest food depot in the world, have so accumulated the offensive and insalubrious accessories of such business, that sanitary and economical problems of enormous magnitude must be treated with masterly skill; and to this subject the health officers in attendance at the meeting gave special attention. Dr. Folsom, the keen-sighted secretary of the Massachusetts State Board, expressed the convictions of *all* of us who have studied these matters, when, in concluding the inspection of them, he said: 'Chicago must expect frequent and fatal visitations of preventable epidemics, especially destructive to young children, so long as the present degree and kind of defilement of the atmosphere of the city continues.'"

During the year 1877 I devoted myself to procuring evidence against the parties who were thus defiling our atmosphere. I secured indictments against twenty-seven of the principal offenders, and in June, 1878, they were brought to trial before the criminal court of this county. Under instructions of the court the prosecution was confined entirely to the question: Are these noxious emanations from the stock-yards prejudicial to the health of our citizens? Seven representative medical gentlemen of Chicago, among them the senior editor of the journal publishing this review, Dr. W. H. Byford, testified in the most emphatic manner, and from personal observation and experience, that they were. On this testimony conviction was secured in every case. Now, in the face of this opinion of the

Filth, Disease, Crime, are well called the three furies of our age and of our civilization; and sanitary science, dealing with the individual man more than with the destiny of the race, seeks to relieve him from the immediate influence of the one, and thus to hinder the tendency toward the other. How shall it be best accomplished? An eminent school of philosophers talks of the "survival of the fittest" as the key to all progress that man attains. Says Mr. Gregg, M.P., in discussing the public Health Acts of 1875: "Sanitary Science is mitigating suffering and achieving success in its warfare against disease; but, at the same time, it enables the diseased to live. It reduces the aggregate mortality by sanitary improvements and precautions, but those whom it saves from dying prematurely it preserves to propagate useless and imperfect lives." Mr. Herbert Spencer, in one of the most suggestive books of our day, says: "This conflict—the development of the individual—ensures the final attainment of the highest form of this (his) maintenance, a form in which the amount of life shall be the greatest possible, and deaths the fewest possible." By this rule the natural process of advancement is founded on limitless waste; "the growth of life is in the soil of boundless death." The man who makes his home in the tenement house, so constructed as to serve as a bell-jar over the sewer, who thereby sees the wife "cut down like the lily at noonday, and the violet children hidden away in the valley," has learned a lesson which he may transmit to his kind as a protecting influence in the final development of the race. By this rule "the intelligent and energetic members of society, who prefer and are able to provide for themselves in all the ordinary exigencies of life," may survive; but, to the ignorant, the poor, the unfortunate, who are always with us, it says, work out your own sanitary salvation; perish or survive, as the result may be; you are worthless of yourselves, and if allowed to multiply you perpetuate helplessness and increase misery.

To secure for you, by legal enactments and by sanitary administration, healthful homes; to protect you, so far as is possible, from devastating epidemics; to insist with energy, and by legal processes, if necessary, that you *shall not*, by sottish personal habits begotten of your ignorance, nor by greed of gain, imperil your own lives and those of your neighbors, all this is declared to be "interfering with the operation of the wholesome monitory laws of nature." Let us admit, in the first instance, that man in his structural development is the result of this law, and let us admit again that in his sanitary evolutions in course of ages—ages so long that the eye of science, watching for centuries, could discover but little movement—he might finally come to a proper recognition and observance of sanitary laws; yet we must observe that the ordinary and practical forces, which we find at work in the elevation of the moral and physical nature of man, are at war with this law. The moral law, all legal codes, the instinct and affection of the family, and the organization of society in civilized life, all proclaim the opposite principle. This princi-

distinguished experts cited by Dr. Harris, and of the sworn testimony of our local physicians, a reviewer in the September number of the *Chicago Medical Journal and Examiner* deliberately puts in print and writes his initials after such a statement as this: "It is, however, to be regretted that from this gallant conflict the officials did not emerge with hands thoroughly clean; . . . there is not the slightest shadow of evidence that it (Bridgeport odor) was dangerous to the health of the city. We have no doubt that many delicate persons have experienced an increase of suffering, in consequence of reading and hearing so much about the dangerous character of the slaughter-house gases. For this the slaughter-houses are not so much to blame as the ignorance or the zeal which propagated such errors."

ple, protecting the weak and succoring the needy, is *not* a pernicious force, tending to the degeneration of the race, but is the introduction into social order of another and a more potent element of human progress, and an ever-present protestation against the conditions of the law of natural selection as a protecting or educating force in human experience. But I only design to refer to the legal aspects of the question.

Experience and common sense alike declare that it is as much the province of government to protect its citizens, in so far as possible, from disease and death, as it is to guard them against the depredation of the lawless and criminal class. The fundamental object of all government, indeed, is to protect life and property; and it is just as essential that the citizens of large cities be protected by government against the manifold and mortal dangers of illy-ventilated tenement-house vaults, as that they should be protected against incendiaries, thieves or robbers. The poor *have* no houses to be protected by the fire department, and no property to be protected by a police department. The only property possessed by the great mass of the poor, who occupy tenement houses, is their health and ability to work, and, by their daily toil, to earn their bread. Is it not the duty of their government (for it is the people's government after all) to protect, in every proper way, that health and capacity to labor? Nor should it be forgotten that such protection operates as the protection of the rich as well, for the pestilence that begins in the hut does not stop at the threshold of wealth. Laws for the enforcement of sanitary measures are traceable for authority to what is known as the police power. What is the police power? "The acknowledged police power of a state," said Chief Justice Marshal, "extends often to the destruction of property. A nuisance may be abated; everything prejudicial to the health or morals of a city may be removed. . . . It is a power essential to self-preservation, and exists necessarily in every organized community." Gibbons v. Ogden, 9 Wheaton, 589.

"The police power of the state," says Judge Redfield, "extends to the protection of the lives, limbs, health, *comfort* and quiet of all persons." Thrope v. B. & B. R. R. Co., 27 Vt. 149.

"By this general police power of the state, persons and property are subjected to all kinds of restraints and burdens, in order to secure the general comfort, *health* and prosperity of the state. Of the perfect right in the legislature to do which no question ever was, or, upon acknowledged principle, can be, made." Cooley's Constitutional Limitations, 327.

Judge Dillon, of the U. S. Circuit Court, in his last edition of the "Law of Municipal Corporations," says (p. 210): "Laws and ordinances relating to the comfort, health, convenience, good order, and general welfare of the inhabitants, are comprehensively styled 'Police Laws or Regulations,' and it is well settled that laws and regulations of this character, though they may disturb the enjoyment of individual rights, are not unconstitutional, *though no provision is made for compensation for such disturbance*. If the individual suffers injury, it is either *damnum absque injuria*, or, in the theory of the law, he is compensated for it by sharing in the *general* benefits which the regulations are intended and calculated to secure. The citizen owns his property absolutely, it is true; . . . still he owns it subject to this restriction, namely: that it must be so used as not to injure others, and that the sovereign authority may, by police regulations, so direct the use of it that it shall not prove pernicious to his neighbors, or the citizens generally."

It would be easy to multiply these quotations. I give you the final résumé of Judge Brainard, in an address delivered before the New York Medico-Legal Society,

December 5, 1877: "The limitations which some believe were set upon legislation, and which hedged about supposed private rights, are yielding to the needs of the times. This change in judicial view has now become a settled principle of judicial action. The disposition of the Court of Appeals appears in the highest court of the nation, and they show that the current of judicial ruling in this country (in administration of health laws) is contrary to the technical spirit,—the over-squeamish regard for supposed private rights." Now let us bring these laws to the test of application. And here, what encouragement and what beauty appears. How invigorating, mentally and morally, such discussion and studies are when conducted with the proper spirit. Do I misrepresent the sentiment of this society, when I say personalities have no place here? Science is knowledge—knowledge can only be perception, discovery, comprehension of truth. "All truth is akin, related in some way to every other truth or fact in the universe, and every fact casts its light upon, or has its relation with, some other facts or class of facts. The test of truth, the touchstone of scientific reasoning, is the harmony of these relations." Are these opinions of the masters of jurisprudence in accord with the needs, more, the necessities, of civilized life? Taking men as we find them in our large cities—not as one would like them to be—where education and intelligence would be substituted for vice and misery, and their concomitants, disease and death—but, as they practically and truly exist, the upright and conscientious close neighboring the vicious and lawless; are not these legal prohibitions to which I have referred, salutary and protective to the public good? And, when I avow my entire belief in them, and my acceptance of them, as the proper guide to official duty, am I to be charged with "the adoption of the entire communist programme"? Is it an attempt on my part "to justify the importation of rude, despotic methods into the quiet repose of civil life"? I must deny the imputation, while I make haste to declare that an intelligent appreciation of the ways in which filth is produced, and becomes destructive in our populous centers, *must* take cognizance of the culpable wickedness of some people, and of the responsibility of the sanitary official to meet this wickedness with all the legal machinery at his command. Without such appreciation sanitary acts are waste paper, and sanitary administration an illusion. Great Britain stands pre-eminent in her attention to preventive medicine, and the eminent names of Chadwick, Farr, Simon, were, and are, the heralds who summon the world to answer for its profligacy of life. Her Public Health Acts of 1848, the Nuisance Removal Act of 1855, the Local Government Act of 1858, the Sanitary Act of 1866, the Public Health Act of 1872, and the Public Health Act of August 11, 1875, surpass in importance any and all sanitary legislation ever before contemplated; and have completed and established on a solid foundation an efficient system of public hygiene, with 15,000 sanitary districts and the requisite number of sanitary officers. In twenty-four English cities, excluding London, with populations varying from 160,000 to 4,000, and whose average number of inhabitants is 18,000, there was an average of 24.7 deaths per thousand before the introduction of the sanitary service above contemplated. Good sewers, good water, improved water closets, with an efficient supervision of tenement houses, has reduced this death rate to 21.9, or in round numbers, three per thousand—an annual saving of 1,300 human lives in a population of 430,000. The commentary by Mr. Simon on these results was that "they may serve to fulfill very important provisional uses, not only to confute persons who have despaired or affected to

despair, of any great preventability of disease; but still more, to justify in the public eye, and to encourage in some of the noblest human labors those who for many years have been spending their powers in this endeavor, and to whom it will be the best of rewards to see the demonstration of the good they have wrought." In eighteen years the death rate in London has been reduced from 25.0 to 21.5 per thousand. In Glasgow, in a well-to-do section of the city, a death rate of 23 in 1,000 in 1871, has been reduced in 1876 to 17 in 1,000; in another district the death rate has been reduced from 29 to 26; in a third from 35 to 26, and in the worst district from 44 to 33, the mean reduction in that city being from 33 to 25 in five years. An annual saving of 3,745 human beings. In a remarkable paper read by Mr. Edwin Chadwick, president of the Health Section, at the twenty-first annual congress of the British Social Science Association, Aberdeen, September 13, 1877, in which he reviews the results of English sanitary legislation, and what it may accomplish in the future, submits the following summary of the chief results obtained of the progress of the power of sanitation:

1. "That we have gained the power of reducing the sickness and death rates in most old cities by at least one-third.

2. "That in new districts or sites, apart from old urban sites, we may with a complete system of water supply and surface cleansing—including measures for the prevention of over-crowding—ensure reduction of death rates to less than one-half, or to a mean rate of ten in one thousand, and the sickness in like proportion.

3. "That in well-provided and well-regulated institutions for children from three to fifteen years of age, we may secure them an immunity from the common children epidemics, and reduce the death rate to a mean rate of about three in a thousand, or to less by two-thirds of the death rates prevalent among children of those ages in the general population." From this norm of sanitation for the infantile stages of life, may be established conditions that go to the prevention of 50,000 deaths in the school stages of life in England and Wales.

6. "That among the general population a reduction by full one-half of the diseases of the respiratory organs, may be effected by general public sanitation."

The entire address of Mr. Chadwick may be found in the early numbers of the *Sanitarian* of 1878, and will well repay a careful perusal. It is popularly supposed that the excessive mortality in some great cities is an inevitable evil resulting from density of population. This is an error, for the concentration of preventive resources is amply able to overcome such causes of insalubity. This is a fact fully demonstrated in London, where the death rate has steadily diminished, and the chances of human life steadily increased for the past twenty years. And this has been wholly the result of systematic sanitary improvements in domiciles, in water supply, in drainage, and in the sanitary police of that metropolis. That death rate and sickness rate *are* increased by density of population will hold true, except where special and systematic sanitary care increases, and keeps pace with the population growth; and if this be true, can there be any doubt of the duty of the state to organize by statute laws those agencies and methods which symbolize a proper concern for the life and social welfare of the citizen, and can there be any doubt of the duty imposed by good citizenship to acquiesce in and submit to such legal restraints of personal freedom in business enterprise, or surroundings of domicile, as shall best conserve the public comfort and well-being? Society does not submit its destinies, in any of the great affairs and events of

human existence, to the doctrines of chance, nor to the philosophy or theories of evolutionists, nor to the ecstatic dreams of humanitarians and philanthropists,—useful though they may all be. In all the transactions of business life, the civil government justly demands obedience to formalities which restrain, and, if necessary, coerce. Shall this function of government be limited to the protection of life, property and order, as suggested by Mr. Spencer, leaving all other social ends to be achieved by individual activities? This is not the tendency of recent practical legislation. Society demands, as of old, protection to life, property and social order; but she is emphasizing louder and louder every day another demand, namely, “the inalienable right of every human being to be supplied with uncontaminated air, water, food, soil, and personal surroundings; and the duty of the state to allow no trespass on this right from negligence, ignorance, or greed of gain.” And society recognizes also the progress of medicine, which to-day declares “that the causes of many diseases, and of many deaths, can be as successfully fenced out from their human crop, as domestic animals can be fenced out from a grain crop”; and it demands that law shall recognize this progress also, and provide for it; and that, as “powder and other explosives are by legal statutes stored away and guarded, so a small-pox pustule, potent with greater mischief than a magazine of dynamite, shall be for greater reasons stored away and guarded.” The officer charged with the sanitary interests of a great city, under the ordinary conditions of civilized life, who permits small-pox to become epidemic in his neighborhood, has supplied the best reason in the world for his immediate displacement. If the local law does not afford an adequate basis for his personal protection and aid in his work, and public sentiment will not sustain him in taking possession of the person and effects of those infected with small-pox, he should resign his office, placing the responsibility where it belongs; for no city *can* be protected from this loathsome pestilence, if officers of health must rest under the fatal disadvantage where any man claims the right to have small-pox in his own domicile and at his neighbor's door, or to refuse to receive for himself or his family the protecting influence of vaccination.

I pass for a moment to consider a persistent and obstinate foe, more to be dreaded than small-pox or Asiatic cholera—*scarlet fever*. It would be truly fortunate if definite and positive prophylactic means were understood, and could be applied to extinguish or control it; but because the attempt to master all the laws and causes that govern the epidemic prevalence of this subtle infection have reached only partial results, or until that much-wished-for day shall come when an antidote is found equally effectual as that which Jenner has given the world to prevent small-pox, there can be no plainer duty than that sanitary authorities, physicians and families, should accept and enforce those measures which an enlightened professional judgment has declared to be useful in limiting the prevalence and mitigating the fatality of this pest of childhood. The results of our best means may seem to some doubtful, but the object actually aimed at is neither uncertain nor unworthy the labor it costs. Stimulated to action by the professional opinion of the leading members of all schools of medicine, that the measure was wise and judicious, this municipal government, following the state law, ordained that warning cards should be placed on every house infected with scarlet fever. The members of this society gave emphatic approval to the law, and on a memorable occasion—memorable because it was the early assertion by the profession of this city that they claimed a hearing in sanitary

affairs—you demanded that the law should be executed. In obedience to this demand, and profoundly convinced of its propriety, I have assumed the responsibility which my office imposes, and have placed the cards. In my last annual report I stated that “the placing of warning cards still receives the almost unanimous approval of the profession in this city.” For this statement I have been charged in polite language with lying. Nevertheless I again assert it to be the fact, to the best of my belief, and if I am in error, now and here is the time to correct me. Let us examine for a moment the facts upon which this action of the state is based. The one fact which we do generally acknowledge in the history of scarlet fever is the fact of personal intercourse, and all that it implies, as an important factor in its propagation and diffusion. This has been denied, and will be again, still I think it an opinion very generally entertained by the profession. Now the warning card is placed, and should be regarded, as the signal of danger. It announces to the passer-by that he should avoid that domicile; it tells the mother to flee, herself and her children, from its presence; it declares to school authorities that not a child from that house should cross the threshold of the school-room; and above all, it educates the public to the proper appreciation—which is the professional appreciation—of the dangers of intercourse with the infected. I judge, therefore, that the state does well to insist upon the placing of the card, and my judgment is worth just what my facts and reasons are worth. Finally, the more closely unsanitary conditions are examined, the more extensive do their ramifications appear, and the more evident it will become that the local and public causes of many destructive diseases are daily endangering the loss of lives, which the state should protect and save by the practical application of sanitary knowledge; and it will also appear that the state alone has the adequate power by just and wise legislative acts to remove or control these causes.

QUININE given in milk is deprived of much of its bitterness.

M. HALLOPEAU is examining the circulation of blood in the corpus striatum.

A LABORER's wife at Kettwig recently delivered four boys and a girl at one birth.

DR. ARRAGON, in *Le Progrès Medical*, advises the use of pyrogallic acid in psoriasis.

DR. A. JACOBI, of New York, recommends five to ten grains of musk in infantile collapse.

THE library of the Faculty of Medicine, in Paris, contains nearly sixty thousand volumes.

LIQUOR ammonia and digitalis were successfully used by Dr. Churton in cardiac thrombosis.

DR. METZQUER, in *La France Medicale*, elucidates the influence of heredity in the etiology of tetanus.

DR. WM. H. BARRY, of Little Rock, Ark., reports in the *St. Louis Clinical Record* a case of narcotism from nutmeg.

CHASSAIGNAC, who has for many years been retired from active life, died recently. He was a brilliant member of the French Academy. His principal work was the inauguration of the method of surgical drainage. He was born in Nantes in 1805, and died at Versailles after a long and painful sickness.

Chicago Medical Gazette.

PUBLISHED ON THE 5TH AND 20TH OF EACH MONTH.

OFFICE OF PUBLICATION, 70 MONROE STREET.

TERMS, \$2 A YEAR, IN ADVANCE.

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Editorials under the heads of the special departments may generally be accredited as indicated above.

VOLUME I.

CHICAGO, JANUARY 20, 1880.

NUMBER 2.

INSANE ASYLUM REFORM IN NEW YORK.—A petition signed by two hundred and twenty-one physicians, lawyers and other citizens in the State of New York, asking the legislature to appoint a committee for examination into the management of the insane asylums in that state, has been followed by the appointing of a committee of the senate, by an investigation and by a report, severely censuring the signers of the petition, and conveying the implication that these asylums are faultless. The bias of this committee is manifest in the ex parte character of the examination. The committee at once assumed the functions of judge and jury, and placed the signers of the petition in the position of complainants at law. The asylum superintendents had been freely consulted in advance, and they practically directed the investigation. The petition to which reference has been made came from the Neurological Society, and had for its prime object the exposure and correction of certain fundamental defects which have disgraced our asylum system, but did not include special evils and abuses, except incidentally. A seeming conspiracy between the superintendents and the committee was formed, and they having the direction of the investigation, made an ex parte examination of the alleged special evils and abuses, and left the fundamental defects practically untouched. The petitioners failed because they went into the contest without preparation and without organization, and because they had permitted the senate committee and the superintendents to place them in a false position. The superintendents were whitewashed in a fulsome manner by the committee, because they had been organized and prepared, and because they placed the petitioners in a false position. The public and the profession, however, do not infer from all this that lunacy reform is not needed; on the contrary, the manifest aversion of the asylum men to a

fair and open inquiry is evidence that reform was and is needed, and notwithstanding the action of this accommodating committee of the senate, another reform movement is in progress. The Neurological Society is maturing a report in which all the evidence refused by the senate committee will be brought out. A public meeting was held at Cooper Institute December 18, at which Mr. Geo. William Curtis presided, and such men as Dr. Willard Parker, Dr. E. C. Séguin, Dr. Bellows and Dr. Storrs took a leading part. The personal animus of the former movement has no place in the sentiment of the present reformers; their work takes a wider and a higher range. At this meeting was urged the formation of a board of lunacy commissioners, and a committee was appointed to draw up a bill for the legislature for that purpose. This committee was also instructed to consider the organization of a national association for the protection of the insane. The management of the insane in America is certainly in violation of the rights of American citizenship, and by comparison with that of other countries becomes a reproach. In New York it is not more disgraceful than in the other states and territories. This statement is made in view of fundamental defects rather than of special abuses. The reform movement in New York ought to sweep the country. Lunacy reform is needed as follows:

I. Appointment and removal of medical officers for political purposes should be stopped.

II. At present the number of medical attendants per capita is smaller than in general hospitals; insane patients require a larger number.

III. Personal supervision over the patients should be increased, and mechanical restraint decreased, until the insane have the maximum of liberty. This would require a larger corps of attendants continually on duty in the wards, in the private rooms and about the grounds of the asylums.

IV. Some wise plan should be adopted for the detection of abuses on the part of the nurses, of the attendants and of the medical staff, whether the abuses arise from criminal or innocent motives, or from inefficiency or from carelessness. In such a plan provision should be made for the hearing of the complaints of partially insane patients.

V. The superintendent should be chosen for his professional ability, and his duties should be strictly of a professional nature. This would necessitate the services of a steward. The superintendent would then be expected to fill his reports with matter of scientific interest, instead of devoting them to the barrels of flour and to the bushels of corn which had been consumed during the fiscal year.

VI. The immense amount of money now being expended in the construction of palace asylums, which can only accommodate the few, should be devoted to the building of a larger number of less expensive asylums, which should relieve the over-crowded poor-houses of their insane paupers. The keeper of the poor-house is not usually skilled in the sanitary management of the insane.

MEDICAL JOURNALISM.—The Gazette takes this time to declare that in journalism no equally important class of men appear to as great disadvantage as do the medical profession. With a few moderate exceptions, the medical journal of this and foreign countries is merely a conventional affair, containing the contributions which its central location or its extended acquaintance may secure or which chance may throw in its way. The excellence of the journal varies directly with the variable excellence of its occasional contributors. It has little or no individuality, because in itself it produces little or nothing. The editorial element has been strangely neglected. We have had too many contributors, too few critics, and the history of medicine and surgery, therefore, is full of errors in precept and in practice which have been copied from author to author for a century. The profession has looked in vain for editorial criticism on the innumerable topics of medical interest. Occasionally an editorial appears on the code, on consultations, on the action of some health board, but independent, fearless, friendless and prolonged agitation on special medical subjects, such as forms the essential part of political journalism, is almost unknown. The medical journalist should have both the energy and the hardihood to print anything that is right and that is in the interest of society, and if one printing prove insufficient, let him print again and yet again. If it be deemed prudent upon occasion to pour in the hot shot, hot and hissing, it is not for him to inquire whom they may hit. When ex-

pressions are to be made, let them be rendered, not in metaphysics nor in poetry, but in the cold facts. Let the editorial columns be many and full; let them bristle with independence, with liberality and with criticism; let them include the pith of the medical literature and of the medical interests of the world.

THE EDITORIAL CORPS.—The demand for a medical journal which shall contain not only contributions, correspondence, society reports, book and instrument reviews, but which shall also have an editorial character such as constitutes the chief excellence in political journalism, has determined the editor to invoke the coöperation of the gentlemen of the editorial corps. They have been selected with special reference to their peculiar fitness. Dr. Quine is professor of materia medica, Chicago Medical College. Dr. Haines is professor of chemistry and toxicology, Rush Medical College. Dr. Fenger is pathologist to Cook County Hospital, and although only two years a resident in Illinois, is known to have done some of the best work in pathology and surgery that has ever been done in the northwest. Dr. Bannister is one of the editors of the Journal of Nervous and Mental Diseases. Dr. Gradle is lecturer on physiology, Chicago Medical College, and Dr. Sawyer is lecturer on midwifery, Rush Medical College, and is one of the attending surgeons to the Woman's Hospital of the State of Illinois. These gentlemen do not constitute a corps of collaborators in the usual meaning of the word, but their duties are defined by the lines which divide the various departments of medicine and surgery. Each man's department depends specially upon him for the quantity and quality of its editorial material. This, however, will not prevent one member of the corps from contributing to the department of another. From each of these gentlemen the profession may expect in each member as much material as is contained in the editorial department of the ordinary journal, i.e., the Gazette has in its editorial department more than seven times the usual strength. The profession may also expect us to do serious work.

SPONTANEOUS INVERSION OF THE UTERUS AFTER ABORTION.—Dr. Arminta Scott, of Philadelphia, has recorded in the January number of the American Journal of Obstetrics, an interesting case of inversion of the uterus after abortion. The woman was twenty-one years old, had been pregnant once before, and suffered abortion during the fourth month. The second pregnancy terminated at the end of the fifth month. The foetus was born by the breech. The placenta came away almost without interference. Immediately afterward there was great hemorrhage,

exhaustion and jactitation. Upon examination the uterus was found partially inverted. The inversion began at the neck, and not at the fundus as it usually does. No difficulty was encountered in restoring the organ. The patient experienced a slow convalescence, interrupted by a slight hemorrhage which lasted for two months. Rare as this accident is at term, the reporter of this case finds that inversion of the uterus after abortion is of even greater rarity. He was able to find the record of five other cases of spontaneous inversion after abortion: two cases occurring at the end of the sixth month, two at the end of the fourth, and one probably at the end of the fifth. In four of the cases the woman was the subject of previous pregnancies; this circumstance is not recorded in the remaining case. The uterus was replaced in four instances, apparently without difficulty. In the remaining case the organ reduced itself spontaneously. All cases ended in recovery.

THE LISTER METHOD.—For his antiseptic method, Lister has in no country been so severely and unjustly criticised as by some of his English colleagues. The *Lancet*, referring to the surgical address delivered at the meeting of the British Medical Association, last summer, by Mr. Savory, attempts to prove that after an "impartial trial" of the antiseptic method, the statistics resulting are in no way superior to those obtained from the older and more simple methods of dressing and operating, but in some respects are even inferior. This attack is founded upon statistics of operations at St. Bartholomew's Hospital, at London, during the years 1876, '77 and '78. The death rate from secondary wound diseases being, for 1876, from (pyæmia 0.49 per cent) pyæmia and erysipelas, 1.24 per cent; for 1877, from (pyæmia 0.95 per cent) pyæmia and erysipelas, 1.43 per cent; for 1878, from (pyæmia 0.96 per cent) pyæmia and erysipelas, 1.68 per cent. The *Lancet* therefore concludes that "if the Listerians can show better results than these, they are unjust to themselves and unfaithful to the doctrine they profess if they any longer withhold the statistical results of their practice." (The *Lancet*, August 16, 1879, p. 247.) It is true that the above-stated results are praiseworthy, and that a new method, asserting superiority over the old must submit to trial and to criticism, but the *Lancet*'s criticism of Lister's method is based upon no essential trial, and is therefore illogical. A trial should consist of a double series of an equal number of similar cases treated by each method simultaneously, and in the same wards of the same hospital, after which the results should be compared. This was not done at St. Bartholomew's. But a number of leading surgeons on the continent, neither "young enthusi-

asts of the antiseptic system," nor yet "germ theorists," but eminent and able men, have tried the methods, compared the statistics, and have published the results. It is these statistics, and not any enthusiasm for the germ theory, that has spoken the deciding word in favor of Lister's method.

Possibly the hygienic conditions of St. Bartholomew's Hospital are almost as good as in private houses, and therefore the antiseptic method is not so much needed. The great majority of hospitals, however, are not so safe against septic infection, and for these the superiority of antiseptic surgery cannot longer be disputed. The records from the last Russo-Turkish war speak volumes for the method. That antiseptic surgery has reached its highest perfection has never been claimed, either by Lister himself or by others. It would, however, be a dangerous retrograde movement to return to what Mr. Savory calls "simple means of dressing."

THE NATIONAL BOARD OF HEALTH.—Exception has been taken to the editorial in the last issue which stated that the "board had been composed mostly of general practitioners, residing at such long distances from one another that mutual acquaintance is impossible, that frequent meetings are impracticable, and that the duties of a board so organized must necessarily be delegated in a large degree to one or more persons mutually acquainted and located at some central point." Subsequent inquiry has shown that the board as a whole has met once a month since June, that four or five of its members have met weekly, and that the distant members of the board have generally attended these meetings at great personal sacrifice of time and money, amounting, as one member reports in his own case, to over a thousand dollars in six months. It thus appears that the meetings have been more fully attended and more frequent than was at first supposed; but since these frequent and full meetings appear to depend upon the inclination of the distant members to sacrifice, in time and money, two thousand dollars a year each to the interests of national sanitation, it would appear the duties of this board must sooner or later be delegated to a few, and it is natural to suppose that these few would have "mutual acquaintance" and a "central location." The questions of local sanitation and urban cleanliness are the only ones which could not properly have been referred to the Marine Hospital Service. The usefulness or uselessness of the board therefore rests upon its ability or inability to deal with these questions more efficiently than the local boards. Under its present organization and by its present methods the board may succeed beyond the expectation of the profession, but even then the ques-

tion will arise whether all of its success could not have been attained with more economy and with less hurrah under the management of the Marine Hospital Service.

CZERNY'S OPERATION FOR THE RADICAL CURE OF HERNIA.—At the last meeting of the West Chicago Medical Society, Monday, January 12, a paper was read by Dr. E. W. Lee on Radical Operation for Hernia,—neither strangulated nor inflamed,—by Czerny's new method. The paper was illustrated by a successful case. This is the first operation by the new method performed and published in the United States. In a later number we shall give a detailed description of the operation, but shall now only point out the main differences between this and the older operations. It was the antiseptic method that gave Czerny the courage to attempt the radical operation in a more effectual manner than was possible by previous operations. An incision is made along the entire length of the hernia. The contents of the sac, if intestinal and reducible, are reduced, if intestinal and irreducible, are dissected loose and reduced, and the sac is ligatured at the neck and cut off. If the contents be omental, they are included in the ligature with the sac. The fibrous columns of the external ring are drawn together by an uninterrupted suture of strong carbolized catgut, and thus the internal ring is closed save at the point of exit of the spermatic cord. A drainage tube is inserted, the wound closed with sutures and dressed antiseptically. This method, as compared with the older ones, is a very remarkable advance toward perfection. The most recent of the older methods,—that of Wood, of London,—could only be applied to reducible hernia, and the results of his operation are always uncertain, because the fibrous columns are drawn together by sutures applied more or less subcutaneously, lest suppuration should supervene. Thus the columns or pillars are not laid bare, and the exact application of sutures and narrowing of the ring are rendered impossible. Czerny's operation has been performed in nine cases of inguinal hernia, and in no case did peritonitis follow. The patient presented was operated upon in July last for an irreducible omental hernia, that rendered impossible the continuation of his daily occupation, since he could not wear a truss. In the discussion which followed allusion was made to a case of reducible scrotal hernia in a child. The surgeon, having heard something of Czerny's operation from one of the gentlemen present, undertook to operate similarly. The child did well and the operation was successful. The surgeon, who expressly stated that he had not availed himself of the spray, carbolized sutures, drainage and antiseptic dressing, was singu-

larly fortunate in not losing his patient from peritonitis (vide history of the older methods of radical operation for hernia in any of the larger text-books on operative surgery). We must pronounce the omission of the antiseptic system in Czerny's operation as unwarrantable rashness bordering on the very confines of crime. Any surgeon who undertakes to operate for hernia,—not strangulated by this or by any other similar method,—should be informed in advance, from the original literature or from minute reliable records, of the details and history of the operation, especially of an operation which only the most scrupulous antiseptic precautions (Czerny and Socin) render permissible.

GAILLARD'S MEDICAL JOURNAL, formerly the Richmond and Louisville Medical Journal, has taken up its abode in New York city, where the editor, Dr. E. S. Gaillard, according to his advertisement on the cover of his journal, may be found at his office, 123 East 46th street, from 9 to 12 A.M. and from 5 to 7 P.M. A Latin sentence on the same cover, and ten other sentences from the same language which appear at the heads of the ten departments, may be accepted as evidence that the editor is an educated gentleman. In the medical news and miscellaneous departments, December, 1879, the editor has failed miserably to make the usual discrimination between his own property and the property of others, for he has appropriated, without giving credit, three editorials taken verbatim from Volume I, No. 1, of the Chicago Medical Gazette: one on the ventilation of sewers, one on the abuses to which shop-women are subjected, and the other a review of a paper of Dr. J. S. Jewell on neurasthenia. Gaillard's Medical Journal has so managed as to make its victim appear to be the culprit, since the stolen editorials appear in Gaillard's journal under date December, 1879, in the Gazette under date January 5, 1880. This number of the Gazette, however, was issued as a specimen two months in advance of its date, as may be proved by the Chicago P. O. records for the month of November, 1879. In the department of Chemistry and Pharmacy is a part of a paper by Dr. W. J. Morton, of New York, published in the Journal of Nervous and Mental Diseases, and here again credit is not given. If this be intentional literary theft it deserves no mercy, and in the interest of honest journalism should receive the rebuke of the entire medical press of the world.

THE Michigan College of Medicine is the name of a new medical College in Detroit. Preliminary examinations and the graded course have been adopted. Any new medical college necessarily fills a space which would otherwise be a vacuum.

THE OBSTETRICAL SOCIETY OF LONDON devoted its session in May, June and July, of the year just passed, to a consideration of "The use of the forceps and its alternatives in lingering labor"—a subject of equal interest to practitioners in this country.

The discussion was opened by an appointed paper by Dr. Robert Barnes, which, with the remarks of the several disputants, are published in the *Obstetrical Journal of Great Britain* for June, July and August.

We have no need of praising the able and interesting paper of the leader in the discussion, for it has been already lauded to the degree of fulsomeness by nearly all who followed. Were we allowed one criticism upon the character of the discussion before the society, it would be that too much time was consumed in remarks of this laudatory character; and this can be said fully knowing the deserved eminence of the gentleman who opened the debate.

The obstetrical meeting is the legitimate place to which the discussion of obstetrical subjects should be confined. We have known a general medical meeting to have the temerity to discuss the subject of obstetric forceps, and the scene which followed reminded us of the entrance of the prepared beast in a bull-fight in which there were no trained gladiators, but where each took his turn in flaunting the offensive red, and in dealing puerile thrusts, until the participants were self-defeated and the field left to the monster. It can hardly be otherwise; for if there is one subject upon which the general practitioner feels himself competent to speak, it is the obstetric forceps.

The character of the London discussion was vastly different, however; here the disputants were known obstetricians. When one can say that he has seen twelve thousand cases of labor, another eight thousand cases, and a third four thousand cases, it will be conceded that such experiences grant a degree of authority which is rare in America. On this account the London society has rendered us a great service by giving such publicity to their views upon this subject; and these views may be fairly taken as representing the present state of this part of obstetric practice in Great Britain.

Before giving the conclusions of the discussion there are several points upon which we may be permitted to speak: First, that there was a great lack of harmony in the views expressed, not upon trivial but upon really vital points, which we will instance later. This fact excites our surprise, though it is really what would obtain if the discussion had occurred in one of our general medical meetings. But this body of London disputants are not simple practitioners of medicine who do a share of obstetric practice; they must be regarded as teachers of ob-

stetrics, and as guiding the art of midwifery in their country. From an American standpoint the disparity seems so great between these teachers that one selects, in a given case of lingering labor, the alternative which we hold to be safe, and the only one admissible, the forceps, while a second contends for the superiority of ergotism.

Dr. Barnes' introductory paper concluded with the following five propositions: 1. In lingering labor, when the head is in the pelvic cavity, the forceps is better than its alternatives. 2. In lingering labor, where the head is engaged in the pelvic brim, and where it is known that the pelvis is well formed, the forceps is better than its alternatives. 3. In lingering labor, where the head is resting on the pelvic brim, the liquor amnii discharged, and it is known, either by exploring with the hand or by other means, that there is no disproportion, or only a slight degree of disproportion, even although the cervix uteri is not fully dilated, the forceps will generally be better than its alternatives. 4. In proportion as the head is arrested high in the pelvis, in the brim, or above the brim, the necessity, the utility and safety of the forceps become less frequent. 5. As a corollary from the preceding propositions, increasing caution in determining on the use of the forceps and greater skill in carrying out the operation are called for.

We believe that these propositions are accepted by the majority of American teachers of obstetrics.

In closing the discussion Dr. Barnes said that the usual division into the high and low forceps operation was not sufficient, and preferred to make a division into three operations. First, the "intra-pelvic" operation, where the head is entirely within the pelvic excavation. Second, the "brim" operation, where the head is partly within the excavation and projecting partly above the brim. Third, the "supra-pelvic" operation, where the head is entirely above the brim. The usefulness and importance of this classification must be apparent to all. We regret that this point was not especially emphasized at the opening of the discussion; for the reason that while one after another declared that there could be no difference of opinion in the choice of alternatives in what is known as the low operation, we apprehend that not all speakers fully comprehended the indications which exist between the middle and high operations; otherwise it is difficult to understand how certain measures could have been advocated as alternatives of the forceps in lingering labor.

Accepting, as we believe we are warranted in doing, that there was also in reality comparative unity of opinion concerning the middle operation, we have left only the head above the brim. As an important condition, the os may be either dilated (or dilatable),

or undilated (or with difficulty stretched open). The question will at once arise, can a labor be considered lingering when the os is closed and the head wholly above the brim? We are assured, upon the authority of Barnes, Hewitt and Hicks, that even at this stage the labor may become lingering, sufficient to entail danger upon the woman and the foetus.

It is essential to recall the most frequent causes of delay at this point. They are slight disproportion of size between head and brim; abnormal state of cervix (due either to organic disease or functional disturbances), and feebleness of uterine contraction. It being admitted that one or more of these states may be of that degree as to demand interference, the question is, and this is the gist of the whole matter, what resource of our art shall we invoke?

The various resources were not enumerated systematically, but, accepting the forceps as one, the following were mentioned by the different disputants as its alternatives: Ergotism, pressure over the uterus (expressing the child, as it has been called), turning.

As between the forceps and ergot we believe there is in this country no difference of opinion, where the precept "Never give ergot while the uterus contains anything" is so generally followed. And we surmise that if there is any one answer which could reject a candidate for his medical degree, it would be his preference of ergot under these circumstances, the dangers of which are so real and potent, and are so generally recognized as to require no description here; and yet more than one of the London disputants sanctioned the use of ergot under these circumstances.

Of the second alternative, pressure over the contracting uterus, we are earnest advocates. We usually invoke this means, either through the binder applied early or pressure by the hands. As a reward, we think we have often assisted the head in entering the brim and helped its propulsion along the bony canal. Pressure is useful at times to prevent a lingering labor, but it is nearly impotent to change a lingering labor; in other words, it is too feeble to be looked upon as an alternative of the forceps.

In London, some (Playfair and others) spoke favorably of pressure, others (Barnes and others) spoke in its condemnation, for what reason it does not appear.

The third resource is version. If the womb is in a state of rest, and contain a full volume of liquor amnii, we are told that turning is easily and, for the mother, safely done, with the hands outside of the uterus. But will anyone pretend that this beautiful operation of turning, with the tip of one finger touching the presenting part through a meek-looking os, and the remaining hand delicately placed upon the belly, as is pictured in the books, as easily done by

the ordinary practitioner as the application of the forceps? Moreover, are not these favorable conditions absent in a lingering labor? Can the labor be called lingering if they are present? We believe not. We are aware that a lingering labor, which is becoming laborious, may demand version; but this is usually when the waters have drained away, and the hand must then be forced into the uterus; but at the stage which we are now considering of lingering labor we cannot understand how version is in any sense an alternative of the forceps.

From this it would seem that there is no legitimate alternative of the forceps in lingering labor; that the forceps is not an elective alternative, but our sole, safe and sufficient resource under these circumstances. If this be true, how can it be reconciled with the practice of the older teachers, and of many of to-day, who have seen the head delayed at the brim from the causes enumerated, and yet never performed the high forceps operation? The task is not really difficult. In point of fact, there are as many shades of opinion as to what constitutes a labor which is delayed to a degree to call for immediate interference as there are observers. In other words, the limits between which a labor may be called lingering, from the very nature of things, must be variable. Threatened exhaustion, and failure of the forces of the woman, which constitute the indications for succor, will be said to exist in a given case at a much earlier moment by one observer than by another. This disparity permitted the ancients, as it does some of this day, to regard time as an alternative of the forceps. They temporized, sustaining the woman as best they could, and often invoking the pernicious effect of ergot. By these measures a lingering labor of the first stage was changed to an arrested labor of the second stage, when the child, now usually dead, was mutilated by craniotomy, or, very exceptionally, removed with the forceps; in either event the death of the mother also followed with shocking frequency.

It is melancholy to think of the immense cost of human life this practice has entailed, and the world owes a debt of gratitude to those who have demonstrated that in the forceps we have an instrument whose most useful function is to anticipate dangerous delay in labor, and to terminate this process within limits which secure the greatest degree of safety to both the woman and her offspring.

THE following is a valuable remedy for scanty, irregular menstruation, when associated with and dependent upon anæmia, neuralgia and neurasthenia: R—Tincturæ ferri chl. ʒ x; liquor potassæ Arsenitis, ʒ ij; M. S. Gtt. xij after each meal, through a glass tube, in about one-third glass of water.

CHICAGO BIOLOGICAL SOCIETY is the name of a new medical society recently organized in this city. As it bids fair to attain to some prominence among local organizations we give its brief history. It is the legitimate descendant of the South Side Dispensary Club, which was organized a year and a half ago by some of the younger members of the South Side Dispensary staff, and included Drs. Bannister, Curtis, Hall, Hatfield, Hayes, Paine, Park, Richey, Schæfer, Starkey, Steele, Tilley and Waxham. Meetings were held fortnightly, and always partook of the social element. The only permanent officer was the secretary, Dr. Park. The meetings were always interesting, and a number of valuable papers were read, and many cases of interest and pathological specimens were exhibited. It was desired, however, to do more strictly scientific and original work, and a plan of reorganization was adopted.

Drs. Brower, Dudley, Gradle, Haines, Ingals and Sawyer were invited to join the above gentlemen and form the nucleus of the new society, intended to consist of the representative younger men of the city. It was decided that papers must be strictly original, and that criticism should be rigid. Applicants for membership must submit an original thesis before they can become members. Meetings are to be held the first Wednesday of each month. At the meeting held December 30, 1879, the following officers were elected: president, Dr. Lester Curtis; vice-president, Dr. D. R. Brower; secretary, Dr. Roswell Park; council, Drs. Curtis, Park, Bannister, Ingals and Steele. Although the membership will be composed chiefly of medical gentlemen, anyone interested and working in any of the branches of collateral science will be welcomed to its ranks. Those who pursue the subjects of sanitary science, microscopy, medical jurisprudence, botany, meteorology, electricity, chemistry, etc., can find in the society those who not only sympathize with them in their studies but can help them in their work, and such it invites to join. We commend the new society to the energetic young men of the city, and predict that if it adheres to its present principles and constitution it will not only gain a favorable reputation wherever its work is known, but confer it upon each of its members.

THE Hot Springs, famous for the hot water into which patients get soon after their arrival in that city, are well known to the profession, but the hot water into which they get before reaching the city limits has not received due attention. The following from a late number of the Hospital Gazette appears to be a fair representation of the way in which the doctors of that city conduct their business. Unfortunately such practices are not confined to the Hot

Springs: "The Hot Springs attract the wealthy who are suffering from certain diseases, the suffering wealthy have attracted the doctor, the doctors look after the wealthy and their wealth, the merchants look after the doctors' wealth, and so on ad infinitum, eventually developing a circle all full of business of healing and a striving for wealth. The great business of the place is doctoring, and everybody in business is dependent upon the doctors' success in securing custom and consequent pay. Doctoring being the chief business, and everybody being dependent upon its rewards, everybody attends to business according to business laws. Solicitors solicit, agents represent and attendants assist the doctors; the boats and cars leading to the city, bringing sufferers who hope to be relieved, are met by doctors' representatives, who extol their respective principals and denounce rivals. Business begins before the victim gets within the city limits, and continues unceasingly until he dies, generally, or by some chance is restored to health, occasionally."

THE profession are invited to attend a special course of lectures on lithotripsy, to be delivered by Dr. Reuben A. Vance before the class of the Medical College at Evansville, Indiana, commencing at 10 o'clock A.M., Wednesday, February 11, 1880. The course will consist of three didactic and two clinical lectures. Dr. Owen, professor of surgery, has so arranged the succession and order of these lectures that practitioners from a distance may attend them all without unnecessary delay. The faculty of the Evansville Medical College will welcome to their regular lectures and clinics those members of the profession who come to hear this course. Dr. Vance would be pleased to communicate with physicians having indigent calculous patients with the view of securing proper cases for operation before the class. Address 113 West Ninth street, Cincinnati, Ohio.

PROF. PAUL BERT has devised and recommended a new anesthetic which it is claimed is freer from danger than any of those now in use. It consists of protoxide of nitrogen 85 parts and oxygen 15 parts, delivered under a pressure of 36 inches of mercury, the ordinary atmosphere pressure being in the neighborhood of 30 inches. Each gas is contained in a separate bag, and the two meet in a smaller one, where they mingle, and whence they are conveyed to a mask over the patient's face. This mask is provided with valves for admitting the gas and giving exit to the exhaled breath. About a gallon and a half is breathed in a minute, hence the supply needs to be rather ample for each operation. The agent and method are very favorably reported on by those who have employed them.

THE December number of the North American Review contains an article from the prolific pen of Dr. G. M. Beard, of New York, entitled "English and American Physique," which abounds in rather curious physiological revelations. The object of the article is to point out certain differences in physique and character, which Dr. Beard believes to exist, between Americans and Europeans, or more especially between Americans and Englishmen. The following are found among the statements made by the author of the paper: Thus, for example, it is said that the eyeball may express emotion. Nerve force is said to vary in velocity with the individual, temperament, season, race and climate. The American, we are told, cannot bear alcoholic drinks on account of his fine organization. We are also taught that the American auditory nervous apparatus can perceive more words in a given time than in the European,—and much more of the same kind. The peculiar and confident way in which this delicate subject is considered, cannot but be regarded by any well informed foreigner as a fine specimen of American conceit. All questions as to the influence of differences in education, artificial habits, etc., so far as the article goes to show, are ignored by Dr. Beard. The altogether too fanciful traits and contrasts in national character would seem to have been discovered by the author more in the use of airy speculation than in the faithful observation and subsequent study of the facts of the case. Such crude notions appear to bad advantage in the pages of the North American Review, especially when they seem to be the results of a "scientific" study of the questions to which they relate. Should the Review desire further articles on popular Anthropology, its readers would no doubt obtain even more entertainment from contributions from the pen of Jules Verne.

A DEATH from chloroform poisoning occurred in the Eclectic College of this city on the 3d instant, in presence of the class. The patient was a robust young farm laborer of twenty-one, and, excepting necrosis of the tibia which necessitated the operation, he was in good condition. He is said to have been excessively nervous, however. The anesthetic was administered by an experienced person. Death occurred before anesthesia had been induced, and it was caused by sudden arrest of respiration. The usual restoratives were employed, including electricity and nitrite of amyl. The professors expressed the remarkable opinion that the result was occasioned by cerebral hemorrhage! Although it requires forcible arguments sometimes to induce medical gentlemen to consult the safety of their patients rather than their own convenience, this is a species of *argumentum ad*

hominem which seldom fails to impress even the most obdurate. It is to be hoped that the unfortunate case served as the subject of a lecture upon the Criminality of Using Chloroform where Ether will Answer as Well. No man has the right to place the life of another in unnecessary peril.

THE annual report of the Surgeon General of the Marine Hospital Service shows that the whole number of patients treated during the year was 20,922. The per capita cost of treatment is shown to be \$17.93. At the reorganization of the service in 1870 this cost was \$38.41; the total receipts of the year were \$361,409.58. Since June 11, 1879, 345 seamen have undergone the physical examination open to all seamen desirous of shipping in the merchant marine service. It is hoped that Congress may, at an early day, make these examinations compulsory, so that only healthy men may be permitted to ship. First-class pavilion hospitals are recommended to be built at Baltimore and New Orleans, and cottage hospitals at Cairo, Memphis, Vicksburg, Norfolk, Galveston, Savannah and Pittsburg. Of the candidates examined for the medical department of this service during 1879, seventy-eight per cent were rejected.

THE RUSH COLLEGE CONCOURS for the lectureship on gynecology in the spring faculty has been duly announced in the medical journals of the country. The concours has been held and the vacancy has been filled. Dr. R. Stansbury Sutton, of Pittsburgh, Pa., was the successful competitor, and from personal acquaintance the Gazette has no reluctance in pronouncing him in all respects worthy of the honor. Dr. A. J. Stone, of St. Paul, Minn., another competitor for the same chair, made an impression so favorable, particularly among the students, that doubt was entertained whether Dr. Stone or Dr. Sutton would receive the appointment. Dr. D. T. Nelson, of Chicago, also appeared to excellent advantage. Six gentlemen entered the concours.

THE prospectus of a new Journal, the Kansas Medical Index, to be published monthly at Fort Scott, Kansas, commencing January 1, 1880, makes the following declaration: "The Index is especially designed as a home news and miscellany, to advance the interest of the profession in the state, not to displace other and larger publications, and as such asks the encouragement and support of the profession." The editor is Dr. F. F. Dickman, of Fort Scott, Kansas.

DR. WM. E. QUINE, who has for ten years been an active member of the Medical Board of the Cook County Hospital, has resigned his position in that organization.

THE Chicago Gynecological Society held its first regular meeting October 25, 1878, at the residence of Dr. H. W. Jones. During the year following Dr. Jones performed the duties of secretary and Dr. Edward Warren Sawyer those of editor, and during the first year they were the only permanent officers. The chairman was nominated and elected for each meeting. At the annual meeting, October 31, 1879, the motion for a permanent organization was carried, a committee was appointed to draft the constitution and by-laws, and Dr. H. Webster Jones was chosen president and Dr. Edward Warren Sawyer, secretary, editor and treasurer. At the next meeting, November 28, the resignation of Dr. Jones as president was accepted, and William H. Byford was unanimously elected to fill the vacancy. At the same meeting Drs. Jones and De Laskie Miller were chosen vice-presidents. The original members are Drs. De Laskie Miller, Wm. H. Byford, A. Reeves Jackson, E. O. F. Roler, H. Webster Jones, Edw. Warren Sawyer, Danl. T. Nelson, H. P. Merriman, Chas. W. Earle, Henry T. Byford, James H. Etheredge and E. C. Dudley. A gynecological and obstetrical fee table was adopted at the last meeting. The transactions for December may be found in the present number of the Gazette.

THE January, 1880, number of the Chicago Journal and Examiner contains the following editorial: "One strong argument in favor of hastening the universal adoption of the metric system is the persistent tendency of printers to confound the old symbols of drachms and ounces. As a sample, we saw in the first number of a new medical journal the following:

R—Fl. ext. galii, 3 ij;
 Fl. ext. jaborandi, } aa 3 ss;
 Tinct. digitalis, }
 Potass. nitratis, 3 ij —M.
 S. One teaspoonful at a dose."

The Journal and Examiner then proceeds to remark that if this should be literally copied by practitioners they might soon find their patients presenting all the symptoms of the excessive action of the digitalis and jaborandi, to say nothing of the nitrate of potassa; that "of course the two drachms of the fl. ext. of galium were intended to be two ounces, and that such mistakes always arise from want of accuracy in the reading and correction of proofs." The Gazette, in reply, asks attention to the following:

Each dose of prescription as originally printed contains:	Doses of the same articles as given by Stille and Maisch:
Fl. ext. galii, ℥ x;	Fl. ext. galii, ℥ xv;
Fl. ext. jaborandi, ℥ xx;	Fl. ext. jaborandi, ℥ xc;
Tr. digitalis, ℥ xx;	Tr. digitalis, ℥ x to xx;
Potass. nitratis, gr. x;	Potass. nitratis, gr. x to xxx.

The above estimate of doses has been made on the basis that the fluid extracts contain grain for minim.

The prescription as printed is therefore within the ordinary limits of safety; it is, moreover, an exact copy of the original manuscript. The Gazette has not been "the first to embrace the new," nor will it be "the last to lay aside the old." The Gazette places a higher value upon adverse than upon favorable criticism, believing the former to be the more valuable, and its gratitude is always in direct proportion to the accuracy of the critic. Nor does the Gazette expect to monopolize all of the advantages to be derived from hostile criticism, and therefore takes this opportunity of noticing that on page 10, July, 1879, number of the Journal and Examiner, appears a prescription for 0.02 gm. = $\frac{1}{50}$ gr. of the sulphate of strychnia, to be taken three times a day. 0.002 gm. = $\frac{1}{500}$ gr. doubtless was meant. Should this be copied literally by practitioners they might find their patients presenting all of the symptoms of the excessive action of strychnia. The mistake would not have occurred under the old system. In the same number is mentioned, 23d line 74th page, a new gland, "the prostrate," and the September number contains an article on "Fractures of the Basis Cranii."

FORCIBLE dilatation of the female urethra has received much credit in the treatment of chronic cystitis, but since the symptoms of cystitis and of fissure of the urethra are identical, it is probable that many of the cases reported cured by this procedure were really cases of simple fissure at the neck of the bladder. The operation is destined, however, to fall into disrepute on account of its dangers. Dr. Emil Noeggerath, of New York, who more than any one else in America has advocated this operation, acknowledged more than a year ago, at a meeting of the New York Obstetrical Society, that in seventy of his own operations forcible dilatation had resulted in two cases of permanent incontinence of urine, an incurable condition. Emmet, in his recent book, predicts that artificial vesico-vaginal fistula will finally be substituted for forcible dilatation of the urethra.

THE following prescription is specially serviceable in the various nervous manifestations which often accompany the menopause.

R—Sodii bromidi, 3 iv; tincturæ nucis vomicæ, 3 ij; elixir calisayæ, 3 ij; syrupi pruni virg. 3 i; elixir simplicis, 3 vi; M. S. 3 ij two, three or four times a day, as needed.

DURING the eight months ending December 1, 1879, 155,000 cases of cholera were reported in Japan, with a fatality of fifty-five per cent.

DR. THOMAS KEITH has not had a fatal result in the last seventy reported cases of ovariectomy.

THE twenty-eighth annual session of the Iowa State Medical Society will be held at Des Moines, commencing Tuesday, January 27, and continue three days. The following papers have been promised: Quinine as an Anti-Congestive Remedy: J. M. Knott, M.D., Sioux City. Dressing Wounds: J. M. Emmert, M.D., Atlantic. Ovariectomy, a case of: G. R. Skinner, M.D., Cedar Rapids. Consumption, a Nerve Disease: J. J. M. Angear, Ft. Madison. Ozone Observations at Iowa City: Gustavus Hinrichs, M.D., Iowa City. Insanity during Pregnancy: W. C. Schultze, M.D., Marengo. Causes and Treatment of Inflammation of Joints: W. W. Grant, M.D., Davenport. Pyrexia as an Element of the Typhoid Condition: D. Scofield, M.D., Washington. Criminal Abortion: H. H. Maynard, M.D., Tipton. The Metric System in Medicine: John North, M.D., Keokuk. Special Surgery in Incised Wounds: W. F. Peck, M.D., Davenport. Ovarian Hysteria: W. H. Gibbon, M.D., Chariton. A New Method of Arresting Puerperal Eclampsia: G. M. Staples, M.D., Dubuque. Treatment of Strictures of the Nasal Duct: C. M. Hobby, M.D., Iowa City. Ovariectomy by Enucleation, with Remarks on the Value of Antiseptics in the After Treatment: J. Williamson, M.D., Ottumwa. Anesthetics in Obstetrical Practice: H. L. Getz, M.D., Marshalltown. Cerebral Hemorrhage: A. Reynolds, M.D., Independence. Scarletina: H. M. Dean, M.D., Muscatine. Some of the New Ideas of the Nervous System: W. D. Middleton, M.D., Davenport. The coming session will be one of more than ordinary interest. In addition to the professional papers, action will be taken relative to several changes in the Constitution and By-laws, and reports will be presented relative to the establishment of a State Board of Health and the regulation of the practice of medicine within the State. A large attendance is expected. President, G. P. Hanawalt, M.D., Des Moines. First Vice-President, N. W. McClure, M.D., Mt. Pleasant. Second Vice-President, D. Scofield, M.D., Washington. Secretary, J. F. Kennedy, M.D., Des Moines. Assistant Secretary, Geo. W. Tibbits, M.D., Des Moines. Treasurer, G. R. Skinner, M.D., Cedar Rapids.

IN a recent communication (*Deutsche Med. Wochenschrift*, 15 and 16) Dr. Kuehn informed us that at the surgical clinic in Greisswald, diseases of the external and middle ear have been very successfully treated on the antiseptic plan. The premises are that the usual inflammations are due to the presence of infecting substance. In fact, direct experiment has shown that the pus of otitis externa may reproduce that affection in a rabbit on injection into the meatus. If the infectious matter be hence destroyed, and the admission of further poison prevented, the morbid

state comes to its natural end. To effect this purpose the meatus is cleansed, syringed with a one per cent solution of salicylic acid, and while still filled, plugged with antiseptic cotton. Similar measures, it is true, have been previously employed, but never in a systematic manner. In an experience of two years the success has been uniform in over one hundred cases. Inflammations of the meatus as well as otorrhoea yield readily. The same principles have also been applied in ten cases of mastoid abscess. After thorough mechanical cleansing of the opened cavity an antiseptic dressing is applied, the meatus being likewise plugged. In such cases the eustachian tube may be disregarded as a route for the poison, since it is hidden and usually closed by the swelling. The writer has acted on these principles since the appearance of this communication with satisfactory results.

THE Illinois Eastern Lunatic Hospital at Kankakee is now receiving patients. Its opening was celebrated at the time of a meeting of the trustees on the 13th inst., by a general reception to the residents of Kankakee. Only the south wing of the main building, with the administrative departments, is completed, but the north wing is under construction, and it is hoped that within a year both this and the detached buildings may be so near completion as to afford accommodation for nearly three hundred patients. The hospital is beautifully situated on the south bank of the Kankakee river about a mile from the city; its drainage is perfect and its water supply inexhaustible. It has all the appointments of a first-class hospital. The central building and offices are planned to admit all probable future enlargements. Dr. R. S. Dewey, the superintendent, is favorably known by his contributions to insanity and kindred subjects. The selection is a good one. His assistant, Dr. Moyer, brings with him the experience gained from previous training as interne at the Jefferson asylum. Under its present administration the public may expect a wise and efficient management in this institution.

EMBALMING.—Dr. Roswell Park, of Chicago, demonstrator of anatomy at the Chicago Medical College, has issued a circular to the profession announcing that he has been for two years experimenting with combinations of antiseptics and preservatives, and that he is prepared to do embalming to any desired extent, and to guarantee success. The expense of embalming for ordinary transportation is about \$25; for indefinite preservation about \$100.

THE addition of a drachm or two of oil of turpentine to a pound of ether obviates the emetic tendency of the latter agent when it is used by inhalation.

REVIEWS AND NOTICES.

THE NATIONAL DISPENSATORY. By Alfred Stillé, M.D., LL.D., and John M. Maisch, Phar.D. Second Edition. Two hundred and thirty-nine illustrations. Philadelphia: Henry C. Lea. Jansen, McClurg & Co., Chicago. Extra cloth, \$6.50; leather, raised bands, \$7.50.

I. GENERAL ARRANGEMENT.—The work is intended for ready reference, and therefore has an encyclopedic character, and is arranged in strict alphabetical order, except the unofficinal drugs of minor importance, which appear under the sub-headings "Allied Drugs," "Allied Plants," etc., and which may be found by reference to the index. All of the drugs and preparations of the U. S. and British Pharmacopœias are included under this arrangement. We also find mentioned under the headings of their respective drugs all of the articles of the German Pharmacopœia, and a larger number from the French Codex, than appeared in the first edition. Instead of writing a separate chapter on pharmaceutical manipulations, the authors have described them fully in connection with those preparations in the making of which they are required, thus bringing description and application in close juxtaposition. The adoption of this plan places everything embraced in the range of the work in its natural position, and reduces the scope of the appendix to the presentation of a few tables.

II. SPECIAL ARRANGEMENT.—Each article is first briefly defined, then its origin, collection or preparation, description, composition, impurities or adulterations; historical notes, physiological action, medical uses and doses, are given. For the chemicals the arrangement is analogous. Thus we are enabled to follow the drug from its native country through the hands of the collector, merchant, pharmacist, chemist and physician to its final application in therapeutics.

a. Origin.—All plants are characterized briefly, not by their botanical features, but by those which to the non-botanist are of greatest importance, which in fact are most striking. The area over which the plants are naturally distributed receives due consideration.

b. Collection or Preparation for the Market.—As a rule, this is given in outline, but fully enough to explain any alterations or special characters imparted to the drug.

c. Description.—This appears to have been given in full, yet so concisely as scarcely to contain a superfluous word. In the recognition of drugs no reliance whatever is placed upon the generally uncertain reactions of test liquids when applied to infusions and to decoctions, which contain necessarily a large number of different principles. But the physical characters receive full attention. The more important histological characteristics and microscopical descriptions have usually been omitted, except in cases such as of starches, cinchona, lycopodium, etc., in which the microscope is necessary for recognition.

d. Composition.—Instead of enumerating the often discrepant results of investigators, the authors have aimed to harmonize them, and to reach the truth by comparison of the conflicting statements.

e. Impurities and Adulterations.—Admixtures of no similarity to the drug are briefly disposed of, but those having more or less resemblance receive fuller descriptions. The natural impurities of chemicals, resulting from the processes employed in their manufacture, are specially mentioned.

f. Physiological Action, Medical Uses and Doses. The therapeutics of the work are rather declared than discussed, but in the critical sifting of facts, and in their classification so that they may be readily grasped by the reader, the authors have succeeded admirably. The entire article on Cinchona is worthy of special consideration.

The therapeutical index is a most valuable part of the book, and in this edition contains about 2,250 more references than were contained in the first, making the entire number about 6,000. This index embraces not alone those articles which "in the authors' opinion are curative or even beneficial, but those also which have at any time been employed on the ground of popular belief or professional authority."

The work naturally comes into competition with the old United States Dispensatory, and the question arises, which is superior? In very many respects the United States Dispensatory is already perfect, and in these respects, therefore, can have no superior, but it contains a larger amount of chaff than the National. It must, however, be remembered that the last edition of the United States was published ten years ago, and therefore cannot be fairly compared with this more recent edition. The influence of a strong rival publication may result in better work.

The book is generally free from typographical errors, yet a few have crept in,—in giving, for instance, the metric weights. On page 101, Aconite, gr. i in 3 ii (gram. 0.666 in 8) should be 0.066 in 8. On page 857, Magendie's solution of morphine, $\frac{1}{2}$ gr. in 6 m (gram. 0.13 in 0.44) should be 0.013 in 0.44. For the convenience of readers the English and metric systems are always given together.

It is evident that the authors have spared neither time nor care in the preparation of this extensive and unusually accurate contribution to medical and pharmaceutical literature.

E. C. D.

THE THROAT AND THE VOICE. By I. Solis Cohen. American Health Primers. Lindsay & Blakiston, 1879.

This little monograph, intended only for the laity, deserves a very favorable mention. Without ostentatious display of technical knowledge, the author introduces the reader gradually into the anatomy of the parts concerned. The style is easy and graceful. The physiological and hygienic parts are well written. The chapter on the cultivation of the voice is especially thorough. So far the book comprises

everything of interest to the non-professional reader; but whether the description of the diseases of the throat is of much benefit to the reader may be doubted. It is not our opinion that medicine, or, more properly speaking, pathology, should be a sealed book to the laity. Quite the contrary, an education seems to us deficient if it does not include physiology as well as the general principles of pathology; but the reader should understand that the special application of these to a given morbid state requires a professional study, and that a superficial knowledge is often worse than useless. Practically the author teaches the same principles in ending every paragraph with the sensible advice that a physician should be consulted. What is the use, therefore, of the detailed symptomatology?

LECTURES ON PRACTICAL SURGERY. By H. H. Toland, M.D., Professor of the Principles and Practice of Surgery and Clinical Surgery in the Medical Department of the University of California. Second Edition. Illustrated. Lindsay & Blakiston, 1879. 8vo., pp. 520, one volume. Jansen, McClurg & Co., Chicago.

This work consists of Dr. Toland's extemporaneous surgical lectures as taken down by a reporter. Its merits are a clear, concise style, and the introduction of a considerable amount of original matter in the form of the author's personal observations and experiences, often illustrated by woodcuts found exclusively in this work.

The faults consist in a crude and hasty way of stating many important points so as to make a vexatious mixture of truth and error, adapted to mislead the student, and to convey the impression that the author has given very inadequate attention to the literature of his department.

Thus in the cure of ununited fractures he omits all mention of the treatment by drilling, except as a means of wiring together the fragments; yet a large portion of such cases are now cured by drilling alone.

In describing the symptoms of Pott's disease of the spine he says the pain is in the back, whereas every surgeon knows that it is the peculiar and singular trait of this disease that the patient usually refers his pain to the front of the body.

In describing lateral curvature he commits the error of attributing it to caries, just as in Pott's disease, only asserting that the caries is on the side instead of the front of the vertebræ. It is nearly inconceivable how such a blunder could be committed.

In giving the treatment of spinal abscesses he omits entirely the discussion of the antiseptics, the aspirator and injection, and only makes a brief condemnatory allusion to the drainage tube. It must be confessed, however, that he has eminent predecessors in his errors, for the standard surgical writers have given us a horrible exhibition of contradiction and blundering incompetency in their discussions of spinal abscesses. Dr. Toland is not the worst among them.

In discussing the treatment of the carious stage of

morbus coxarius, our author gives very little attention to the mechanical part of the treatment, which is a very serious error. In respect to those cases which require operation he takes the extraordinary ground of advising amputation at the hip joint instead of excision. To justify the advice he makes the assertion that, in children, after excision the limb "is attached to the pelvis by muscles, and is nothing better than a dangling mass of bones and flesh, which is an incumbrance of the most serious character." Such an assertion is inexcusable at a time when some hundreds of patients are walking about on very useful limbs, the heads of whose femora have been exsected in childhood.

Page 346 is headed "Wounds of the Chest," but contains nothing bearing on that subject, the only topics introduced being tracheotomy, stricture of the œsophagus and goitre. However, after a few pages the topic of the wounds of the chest comes to the surface. The author, though hastily condemning the draining tube in lumbar abscess, advocates it in pleural suppuration, and claims to have employed it three years before it was tried in Europe. He gives, however, no hint that he ever heard of antiseptic injections being employed with them, and in fact ignores the whole subject of antiseptic surgery throughout the book.

In respect to syphilis he is brief and practical, but not always clear. He recognizes the term "tertiary," but nevertheless includes rupia and gummy tumors among the secondary symptoms. He probably has not a clear idea of the distinction between secondary and tertiary syphilis, but his discussion of the treatment is sound and practical. In general terms we may characterize the author as a writer of considerable mental power and of prolonged personal experience, but as one who does not bring to his work any thoroughness of reading, or any considerable scholarship in surgical pathology.

E. A.

THE PATHOLOGICAL ANATOMY OF THE EAR. With woodcuts. By Prof. Hermann Schwartz, M.D., of the University of Halle. Translated by J. Orne Green, A.M., M.D., Clinical Instructor in Otology in Harvard University.

It was reserved for the last half of the nineteenth century to give to the ear and its diseases that systematic study that has placed otology on a basis at all worthy of so important a subject. The literature respecting the ear prior to that time has little of practical value in the light of the present day.

We have now several works of acknowledged merit, American and foreign, on the ear and its diseases, besides several journals of otology and numerous meritorious articles in medical periodicals of the day. It is one of the evidences of another step forward that this work of Schwartz appears, and shows that labor in the field of otology is being subdivided and is progressing in the direction of more precise knowledge.

Since anatomy, both normal and pathological, must be the basis of scientific therapeutics, we welcome this

first effort to systematize our knowledge of the pathology of the ear, if we except the valuable contribution of Toynbee, who may be regarded as having laid its foundation, and the work of Politzer on the membrane tympani, another worthy effort in the same direction.

The thoroughness of Schwartz's work must commend it to the conscientious student, and the references to the literature of this department of pathology give some idea of the author's familiarity with his subject and the work entailed in its preparation, besides affording the reader a valuable index. The illustrations of abnormal auricles and other unusual conditions of the external ear are at least curious. It is to be regretted that the other delineations could not have been made to illustrate more clearly the conditions they are designed to represent; but so much has been done, and well done, that it is an unwelcome task to do aught but commend.

In regard to the pathology of the middle ear the author gives due credit to the work of Toynbee and others, and joins in the general regret that so little has yet been ascertained of useful information regarding lesions of the internal ear. The definite information given as to the best method of making dissections of the ear will aid the inexperienced student in his effort to study the pathology on the cadaver, and to lay a correct foundation for profitable study of otology.

It is to be hoped that this work will prove to be the precursor of others in this unexhausted field. The translator may be congratulated on having chosen for his work a useful subject, and on having accomplished his undertaking in a manner worthy of that subject.

S. J. J.

A DICTIONARY OF THE GERMAN TERMS USED IN MEDICINE. By George R. Cutter, M.D. New York: G. P. Putnam's Sons. Jansen, McClurg & Co., Chicago.

For thirty years the writer has looked in vain for a work like this of Dr. Cutter's. In the preface the author tells us that the book has grown out of his own necessities in translation, a statement which every reader of German medical literature will at once appreciate. For in the dilemmas of translation each student doubtless has very often, in his reference to the standard English-German dictionaries, had his labor for his pains, and put aside the ponderous vocabulary with a sense of astonishment, not entirely free from provocation, that any lexicographer could manage to leave out the majority of words for which one seeks. It may be stated that with the aids hitherto at hand the translation of a German medical work by an English-speaking reader was an impossibility, unless the translator had, like Dr. Cutter, by dint of years of careful reading, formed for himself a dictionary of medical terms. Even the professional teacher of German could render but little assistance to a translator "stuck" on a word to all appearance absolutely unknown to every lexicographer in the catalogue.

Dr. Cutter's Dictionary is an octavo of 300 pages.

The gender, genitive and plural terminations of nouns are given, as also the form of the verbs and the proper auxiliary. The definition is given in Latin as well as English.

This work is a desideratum, and Dr. Cutter in preparing it has rendered an essential service to the English-speaking student of German, and to medical science as well, by straightening the paths and making less rugged the way to the broad, rich fields of German medical literature.

J. B.

POCKET THERAPEUTICS AND DOSE-BOOK. By Morse Stewart, Jr., A.B., M.D. Second edition, revised and enlarged. Detroit: Geo. D. Stewart, 1878.

This is very complete in its way, containing a classification and explanation of the actions of medicines, minimum and maximum doses according to both the ordinary and the metric systems, lists of diseases and their remedies, rules as to Latinity of prescriptions, lists of poisons and antidotes, and various other useful memoranda. To any one who wishes a compendium of therapeutics, with various other useful data, reduced to its minimum compass, and it is not difficult to imagine almost any one sometimes desiring it, he can here obtain it. The book is convenient, as far as we have examined tolerably accurate, and will probably have an extensive circulation.

B.

THE PHYSICIAN'S VISITING LIST FOR 1880. Twenty-ninth year of its publication. Philadelphia: Lindsay & Blakiston. Sold by all booksellers and druggists.

THE PHYSICIAN'S POCKET DAY-BOOK. By C. Henri Leonard, M.A., M.D. Copyright, 1878. Detroit: 1878, C. Henri Leonard.

The annual edition of Lindsay & Blakiston's Visiting List scarcely needs any introduction to the profession: we doubt whether there is any other in such general use among physicians. Its convenient arrangement, compact form, and useful collection of data, render it almost indispensable to every medical man in active practice who has once made its acquaintance.

Dr. Leonard's Day-Book is also a convenient arrangement for daily use, and will meet all the requirements of the practitioner with the average amount of practice. It appears to us, however, that to compete successfully with the other, it should contain other matter than simple ruled spaces for medical bookkeeping. If Dr. Leonard would combine his Dose-Book with its useful information, or selected portions with this, it would meet a better sale.

B.

BOOKS AND PAMPHLETS RECEIVED.

EDWARD W. JENKS, M.D. Obstetrics and Diseases of Women and Children. From Transactions of the American Medical Association, 1878.

THE RELATIONS OF ANCIENT MEDICINE TO GYNÆCOLOGY. From Detroit Medical Journal, May, 1877.

PERINEORRHAPHY. From the American Journal of Obstetrics and Diseases of Women and Children, Vol. XII, No. II.

JAMES I. TUCKER, A.M., M.D. Herpes Zoster Frontalis. From *Journal of Nervous and Mental Diseases*, October, 1876.

J. G. MEACHAM, JR., M.D. Osteocephaloma of the Thigh. From *Transactions Wisconsin State Medical Society*, 1879.

N. S. DAVIS, M.D. Origin and Spread of Yellow Fever. From the *Chicago Medical Journal and Examiner*, December, 1879.

E. C. HELM, M.D. Alcoholism. From the *Chicago Journal and Examiner*, December, 1879.

ROSWELL PARK, A.M., M.D. A Conspectus of Three Different Forms of Acute Inflammatory Cardiac Disorder. From *Chicago Journal and Examiner*, October, 1879.

N. SENN, M.D. Medical Legislation. From the *Transactions of the Wisconsin State Medical Society*, 1879.

JOHN H. GILMAN, M.D. Diphtheria. From *Transactions of the Massachusetts State Medical Society*, 1877.

TRANSACTIONS OF THE AMERICAN OTOLOGICAL SOCIETY. Twelfth Annual Meeting. Vol. II, Part III.

J. G. MEACHAM, SR., M.D. New and Improved Surgical Instruments. From the *Transactions of the Wisconsin State Medical Society*, 1879.

U. S. MARINE HOSPITAL SERVICE. Regulations, 1879.

JOHN BARTLETT, M.D. A Consideration of Some of the Errors Incident to the Ordinary Methods of Determining the Relative Lengths of the Lower Extremities. From the *Chicago Medical Journal and Examiner*, May, 1878.

U. S. ARMY. Quarterly Report of the Medical Officers of the U. S. Army, with their Stations and Duties, as Reported to the Surgeon-General, January 1, 1880, or at date of last report received at this office.

OFFICIAL LIST of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service. October 1, 1879, to December 31, 1879.

Bailhache, P. H., surgeon. Relieved from duty port of New York, and ordered to Philadelphia temporarily, thence to resume his duties as member of the National Board of Health. Oct. 25, 1879.

Hutton, W. H. H., surgeon. Relieved from duty port of New Orleans, and ordered to Detroit. Nov. 1, 1879.

Fessenden, C. S. D., surgeon. Relieved from duty port of Portland, Maine, and ordered to New York. Oct. 25, 1879.

Döring, E. J., surgeon. Relieved from duty port of Philadelphia, and ordered to Portland, Maine. Oct. 25, 1879.

Austin, H. W., assistant surgeon. Relieved from duty port of Key West, and ordered to New Orleans. Nov. 1, 1879.

Stoner, G. W., assistant surgeon. Relieved from duty port of Buffalo, and ordered to Philadelphia. Oct. 25, 1879.

Fisher, J. C., assistant surgeon. Detailed as chairman of board for the physical examination of candidates for promotion in the Revenue Marine Service. Nov. 20, 1879. Granted leave of absence for nine days from Dec. 19, 1879. Dec. 17, 1879.

Godfrey, John, assistant surgeon. Ordered to proceed to New Orleans, for temporary duty during illness of Surgeon Austin. Dec. 29, 1879.

Goldsborough, C. B., assistant surgeon. Detailed as recorder of board for the physical examination of candidates for promotion in the Revenue Marine Service. Nov. 20, 1879.

White, R., jr., assistant surgeon. Ordered to Buffalo. Oct. 24, 1879. Orders to Buffalo revoked; ordered to report to Surgeon Fessenden, New York, for duty. Nov. 12, 1879.

Irwin, Fairfax, assistant surgeon. Upon expiration of leave of absence to proceed to Charleston, S. C. Oct. 31, 1879.

Glazier, W. C. W., assistant surgeon. Relieved from duty port of Charleston, S. C., and ordered to Key West, Fla. Oct. 31, 1879.

Cooke, H. P., assistant surgeon. Relieved from duty port of Pensacola, Fla., and ordered to Buffalo, N. Y. Dec. 1, 1879.

O'Connor, F. J., assistant surgeon. Ordered to Philadelphia for temporary duty, Nov. 10, 1879. Ordered to Buffalo, N. Y., for temporary duty, Nov. 12, 1879. When relieved by Ass't. Surgeon Cooke to rejoin his proper station. Dec. 9, 1879.

Porter, F. D., assistant surgeon. Assigned to temporary charge at Detroit Marine Hospital, Oct. 25, 1879. When relieved by surgeon Hutton, to proceed to Chicago, and report for duty to Surgeon Miller. Dec. 17, 1879.

PROMOTIONS.

Austin, H. W., surgeon. Promoted to be surgeon from Nov. 1, 1879. Nov. 1, 1879.

Gassaway, J. M., passed assistant surgeon. Promoted to be passed assistant surgeon. Dec. 12, 1879.

Smith, Henry, passed assistant surgeon. Promoted to be passed assistant surgeon. Dec. 12, 1879.

Stoner, G. W., passed assistant surgeon. Promoted to be passed assistant surgeon. Dec. 12, 1879.

RESIGNATIONS.

Ellinwood, C. N., surgeon. Resignation accepted to take effect Oct. 2, 1879. Oct. 2, 1879.

Brown, J. A., surgeon. Resignation accepted, to take effect Nov. 1, 1879. Nov. 7, 1879.

Dana, C. L., assistant surgeon. Resignation accepted, to take effect Nov. 15, 1879. Nov. 11, 1879.

OFFICIAL LIST of Changes of Stations and Duties of Officers of the Medical Department United States Army, from January 1, 1880, to January 15, 1880.

Heger, A., major and surgeon. To proceed on or before Feb. 1, 1880, to San Antonio, Texas, and report in person to the commanding general, department of Texas, for assignment to duty. S. O. 3, c. s., A. G. O.

Clements, B. A., major and surgeon. Having relinquished his leave of absence, assigned to duty at Willet's Point, N. Y., relieving surgeon Anthony Heger. S. O. 3, A. G. O., Jan. 6, 1880.

Forwood, Wm. H., major and surgeon. Assigned to duty as post surgeon at Ft. Omaha, Nebraska, relieving assistant surgeon R. Barnett. S. O. 121, department of the Platte, Dec. 29, 1879.

Taylor, B. D., 1st lieutenant and assistant surgeon. Assigned to temporary duty at Governor's Island, N. Y. H. S. O. 7, department of the East, Jan. 12, 1880.

EDITORIAL ITEMS.

AND now it transpires that from time immemorial *Fucus Vesiculosus* has been used in Ireland for fattening pigs!

T. KRONER, in *Arch. f. Gyn.* xiv, § 271, narrates spontaneous reduction in *inversio uteri puerperalis* by the *colpeurynter*.

EQUISETUM is being used in incontinence of urine, and, as usual with new remedies, there is an incontinence of praise for its effects.

CASES of poisoning by *santonin* in small doses, and an oxytotic effect of *pilocarpine*, are narrated in the *British Medical Journal*, Sept. 27 last.

M. LAPIN, in the *St. Petersburg Med. Woch.*, details fifty cases wherein cold clysters had been used as antipyretic, concluding that at 10° C. excellent results are obtained.

PEROXIDE of hydrogen is being used for a purpose not mentioned in the *Dispensatory*. It has recently taken the place of chlorine compounds and other more dangerous articles for the conversion of brunettes into blondes, as far as hair bleaching can effect such a metamorphosis.

CORRESPONDENCE.

NEW YORK, January 1, 1880.

Considerable excitement has recently been created by the revival of the discussion relative to reform in the management of lunatic asylums and the treatment of the insane. The movement was originally started by the members of the New York Neurological Society, and certain other professional sore-heads, whose animosity toward several gentlemen in charge of some of the state institutions proved a sufficient motive in securing their co-operation. A petition, asking for the appointment of a committee to investigate the management of all the institutions for the insane in the state, and purporting to have been signed by over "two hundred and twenty physicians, lawyers and citizens," was given considerable notoriety by its publication, with an editorial in one of our largest city dailies, and subsequently submitted to the legislature at its last session. Assertions of the most sweeping character, charging superintendents with grossest ignorance and wholesale mismanagement, were made. Why, judging from some of the statements, one might suppose that a lunatic asylum of the present day were, as in England a hundred years ago, a veritable pandemonium, where visitors were sickened by sounds of blows and yells and cries of agony that told how the inmates were being terrorized into a stupor that often ended in death; that the days of Don Quixote, who speaks of "madmen being whipped," and of Shakspeare's Rosalind, who says "Love is merely a madness" and "deserves a dark house and whip as madmen do," were still with us. An investigation was at once ordered by the senate. All the gentlemen whose names were attached to the petition were summoned to appear before the committee on Public Health. Strange to say they did not come. Many wrote saying their signatures had been obtained under false representations; others, that they knew nothing about the institutions, having never seen the inside of one of them, and requesting their names withdrawn. Others took no notice of the summons. So that on the day appointed for the investigation only two, and at a subsequent period two additional, making in all *four* of the original number, showed a willingness to substantiate their charges by appearing in person to prove them. A searching examination was made, and the report, which fills a pamphlet of over fifty pages, concludes as follows:

"This attack by medical men on the scientific work of a state institution, evinces an ignorance and a spirit of recklessness unworthy of a great profession, and should be condemned by all who have the interests of science and humanity at heart. The assailing of public officers and the great charities of the state in such a reckless manner, the committee believe should be exposed, not simply because it is a wicked use of the sacred right of petition to the injury of individuals, but it also creates public distrust in the administration of state charities, and fills with unnecessary pain the hearts of those who are obliged

to commit their loved ones to the care of these institutions, and further, because it tends to degrade the dignity of the state."

This winter the attack has been renewed in a somewhat more rational manner. Personalities have in a measure been dropped, and a few individuals of high social character, though, we regret to add, without much scientific or technical knowledge of their subject, united in an effort to solve the great social problem, and as Lernato says: "Fetter strong madness in a silken thread." A meeting, presided over by New York's most eloquent orator, the silver-tongued Curtis, was held at Cooper Institute, where it was again decided to memorialize the state legislature; this time for the establishment of a permanent board of commissioners in lunacy, and advocating various other reforms. Among the objects sought were the restriction of the number of patients to each institution, so that not over two hundred and fifty cases could be confined at one place at the same time; a revision of the commitment laws, making it more difficult to deprive patients of their liberty; the appointment of female physicians to female wards; and the establishment of a national association for the protection of the insane. The speeches were, in general, commendable for their liberalism and earnestness, and it was shown, to the satisfaction of the speakers at least, that the success of lunacy boards abroad entitled them to a trial in this country. But many of the statements were so exaggerated, or founded upon such superficial observations, that an expert would have reached his conclusion by the "reductio ad absurdum" process. This arose, Dr. Hamilton says in a letter to the *Tribune*, "from the false reasoning certain laymen are apt to indulge in when they attempt to experiment to their own satisfaction with medical or other sciences of which they know little or nothing."

Comparisons of a most unfair character were made, but it is a matter of sincere regret that the only individual who charged professional incompetency on the part of superintendents was a member of the profession of medicine, and his proof, as Dr. H. asserts, was the unsupported statements of certain hot-headed, jealous and disappointed aspirants for office, and discharged officials and nurses. On the other side, it may be stated that the medical journals of England and the continent attest in most complimentary terms to the valuable services in the schools of psychology and mental pathology, rendered by some of these superintendents. Dr. Bucknill, an eminent English authority on insanity, in his notes on American asylums (1878), is most enthusiastic in their praise, and says that the pathological investigations which are being systematically carried on at the State Asylum at Utica, and the utilization of the material for scientific inquiry which the institution affords, presents a remarkable similarity to the great school of mental science, which has been founded at Yorkshire by Dr. Chrichton Browne. This public dis-

cussion, taken altogether, seems to be a most unfortunate one. Much professional jealousy and bitterness has arisen from it, and public confidence in the management of the institutions has been shaken. The sensational articles which have appeared in the papers have already been productive of the worst results, and it is to be hoped that an *intelligent discussion* of the best methods of the care of the insane, and a heartier sympathy with those who are professionally charged with them, will soon take place. As Dr. Hamilton says: "The task to such members of the medical profession is no easy one, and their responsibilities are not light. But they will not be helped to discharge those responsibilities by sweeping criticisms; which implies, if it has not the courage directly to charge, widespread inefficiency and neglect, and which rewards the efforts of men who have devoted a lifetime to the cause of the insane, with obloquy and suspicion."

How much pleasanter it is to turn from this discussion to that of the new and beautiful charity recently established by the generosity of New Yorkers, viz: "Hospital Sunday." The idea was borrowed from London, where on the last Sunday of the year collections are made in all the churches for the benefit of all hospitals supported by contribution. The term Hospital Sunday includes also a Hospital Saturday, the one preceding it, and on that day receiving-boxes, with little yellow flags attached to designate them, were placed in the various exchanges, hotels, and along the routes of travel, reminding the banker, the merchant, or the visitor, that his contribution would be especially welcome at this sacred season, when the poor and helpless have an irresistible claim on the good will of mankind. The movement, which other cities would do well to imitate, is absolutely unsectarian. Churches or individuals may, if they choose, designate the institution to which their contributions shall go; otherwise the fund will be divided according to the number of hospital days free beds have been occupied in each institution during the preceding year. The public generously responded to the call, and over \$10,000 was collected. The institution is novel now, but these gratifying results have firmly established it. As it advances with age, and charitable individuals see their contributions wisely and carefully distributed, instead of being prostituted to the cause of pauperism as unfortunately is now too often the case, the proverbial generosity of our people will make Hospital Sunday one of the pleasantest, because one of the most beautiful, of our holiday anniversaries.

CINCINNATI, OHIO, January 10, 1880.

Your Cincinnati correspondent is sorry the Gazette cannot spare space for a full account of certain professional doings in this locality. Lately several rather remarkable papers have been brought before our local societies. Two of these, read before the Cincinnati Society, are noteworthy for several reasons. Their authors are both young men—one, physician to the

Cincinnati Hospital; the other, pathologist to that institution—and are thoroughly educated practitioners. Not only that, they are competent scientific observers, as well as skillful and successful physicians. Dr. J. C. MacKenzie detailed two cases of pleurisy complicating phthisis pulmonalis treated by aspiration. In one the operation was a success so far as immediate relief was concerned. In the other death came on within two hours of the operation. Dr. N. P. Dandridge described the accidents which have been observed after thoracentesis by aspiration for removal of pleuritic effusions, illustrating the diverse phenomena alluded to by cases occurring in both public and private practice. It was the fortune of the latter paper to initiate a discussion participated in by many of the best physicians of the city; also, much important information was adduced during the course of the discussion. Dr. R. B. Davy, in an able monograph, illustrated the increased mortality of paracentesis thoracis on account of purulent transformation of the effused fluids. Dr. Dandridge dwelt upon the fact that clots may form in the pulmonary veins of the compressed lung, which wash away when the pleuritic fluids are absorbed and the compressed lung expands; that these clots may lodge in the arteries of the cephalic or abdominal viscera, or the vessels of the extremities, thus producing coma, convulsions, syncope, paralysis, embolism or gangrene. Dr. Davy thinks purulent transformation of the effused fluids causes death in ten per cent of the complicated and in five per cent of the uncomplicated cases. Drs. Davy, Dandridge, MacKenzie, Comegys, Davis, Judkins, W. H. Taylor and many others took part in the discussion.

At the Academy of Medicine, early in December, Dr. Drury brought up the question of communicability of tuberculosis by inoculation—a subject still under discussion. The question, aside from its practical every-day interest, is a vital one, and the different views taken by the various members were an interesting study in themselves. When I remark that Couner, Ransohoff, Mitchell, Reamy, Cleveland, Drury and other well known practitioners took part in the discussion, you will see the impossibility of my doing anything like justice to the subject in the space at my disposal.

Some years since Dr. C. E. Billington, then one of the young physicians of New York city, now, I scarcely need say, an eminent practitioner of the metropolis, presented a paper to the New York Academy of Medicine discussing diphtheria and its treatment, as exhibited by an analysis of one hundred and seventy-nine cases. Of one hundred and twenty-four cases treated by Billington in dispensary practice thirty died,—a mortality of 24.2 per cent,—a gain of about 15 per cent over the ordinary mortality of that epidemic in his neighborhood. In private practice, out of seventeen cases Billington lost but one case. It is impossible to do justice either to Billington's views or his practice without a study of his

paper, — part of the transactions of the New York Academy of Medicine for 1876, — and I must refer those interested to the latter. But this much can be said: Billington, with some other students of diphtheria, holds that

1. The gravity of diphtheria is in proportion to the extent of its local manifestations;

2. The constitutional implication is secondary to the local change; and

3. Success in treatment depends on thoroughness of local disinfection.

Such is your correspondent's memory of Billington's views, he not having the latter's paper at hand. Within a few days the writer has had his attention drawn to a method of treatment which has succeeded admirably with its originator, and which presents so many points in common with the method of the New York practitioner that he is induced to detail it in full for the readers of the Gazette. Dr. R. Bevier, a gentleman that for thirty-nine years has practiced medicine at Plymouth, in this state, was compelled to do battle with an epidemic of diphtheria which attacked that community in November, 1878, and has hardly subsided yet. The doctor, although treating a very large number of cases, has met with an unusual and very gratifying degree of success. During the past fifteen months there has not been a week in which he has not had one or more cases of diphtheria under his care, and notwithstanding the fact that the epidemic has been of a severe character, and that many have died in that community, yet there are but two cases in which the doctor was consulted that proved fatal. The writer regrets his inability to convey to the reader the modest manner and complete absence of all semblance of self-confidence characteristic of Dr. Bevier. The following is the plan he pursues: When called to a case in the early stages of the disease he orders tincture of the chloride of iron, in doses of a drop for each year of the patient's age, up to 18, to be given in simple syrup every second hour. Thus a child of 7 would receive seven drops; one of 12, twelve drops, etc. Alternating with the foregoing, and like it, at the expiration of every second hour, the patient, if awake, receives according to age from a teaspoonful to a tablespoonful of the following:

R—Chlorate of potash,	℥ iij;
Sulphurous acid,	℥ iij ss;
Tr. chloride of iron,	℥ iij;
Water, enough to make	℥ vi.—M.

Fifteen minutes before administering the latter, thoroughly swab the throat with the following:

R—Carbolic acid,	℥ i;
Sulphurous acid,	℥ iij;
Tr. chloride of iron,	
Glycerine, of each,	℥ i.—M.

Once in eight hours, in lieu of the foregoing, employ the following:

R—Permanganate of potash, gr. iv;	
Water,	℥ j.—M.

Quinine should be given during the first four days of

treatment. Commencing at 4 o'clock in the morning, administer quinine in such quantities that in four doses, each at an hour's interval, the patient shall receive a grain and a half of the drug for each year of his age. Thus, if the patient were five years of age, seven and a half grains would be the total amount given each day, and each dose would be a little less than two grains. The maximum dose is for ten years; beyond the quantity required for such a case (15 grains daily for each of the four days) Dr. Bevier never goes. During the hours (from 4 to 8 A.M.) that quinine is being administered no other drug is given. At the expiration of the fourth day the quinine is discontinued, unless the patient needs a tonic; in such cases it may be continued in small doses. Upon two apparently minor points the doctor lays great stress. One is that the patient receive no fluid of any kind for fifteen minutes after the exhibition of any of the remedies except quinine; the other, that the swab with which the sulphurous acid or permanganate of potash wash is applied be small and soft—such as can be made from a strip of muslin, an inch wide and six inches long, which has been unraveled to the depth of half an inch and wound round the end of a small pine stick.

Dr. Bevier narrated two cases to your correspondent which prove beyond all question that in diphtheria, so long as life lasts there is good ground for hope, and that the ultimate recovery of desperate cases depends much upon the thoroughness with which the local applications are made.

VISITOR.

THAT DEATH FROM CHLOROFORM.

MOUNT PISGAH, January 10, 1880.

I see by your city papers of a few days ago that another death from chloroform has occurred, this time at the Bennett Eclectic Medical School. It would seem that deaths from this cause are becoming so frequent that the papers devote but a paragraph to their mention. May it not be that the editors of the daily press look to the writers of medical journals to draw from accidents of this kind all the moral which is suggested by them?

If you examine the account of this case, as given by the press, you will not fail to notice how similar the details are to those of nearly all other cases. It is called a peculiar death. To what degree must this multitude of deaths be swelled before death from chloroform seems less peculiar? The victim is found to be nervous, as though he were expected to be calm in the moment preceding his immolation before a class of medical students. A person of large experience was selected to administer the death-dose; this fact is so common that the reader can hardly help wishing that some street-laborer had been picked up to administer the drug for once, to see if the fatal spell could not be broken. This person of unusual experience gave the usual dose in the usual manner, and we had almost said the usual result followed — the patient died. How surprised they all must have

been—all but the patient! Then the usual attempts at resuscitation were made, with the usual futile results. The papers do not tell us that the most powerful of all measures was invoked—standing the corpse on his head; it may be, however, that this learned group were not quite clear on this point, and may have assumed this position themselves, while the big electrical battery was being limbered for action. The only thing that remained now was to stuff the newspaper men; to this end the “professors,” we are told, gave it as their opinion that there must have been rupture of the vessels of the brain. The autopsy was made by the county physician. His experience in autopsy-making cannot exceed a few hundred cases. Had a man of greater experience made this examination, he might have even discovered that the principal blood-vessels had been omitted altogether in the creation of this man, or that the entire circulatory system had been extensively ruptured years before, when the young man was employed on the farm. But the gentleman who officiated at the section found only five tablespoonfuls of water in the brain, and a like amount in the pericardium, a circumstance alone of absolutely no pathological importance. The gentlemanly jury, who perhaps could not have told the function of the aorta from that of a sausage skin, gave a verdict of death from congestion of the brain. This was consistent with their ignorance, but they recommended the medical faculty to be very careful in giving chloroform in the future. Is this recommendation not inconsistent? Are we to infer that the chloroform explained the presence of the water in the brain? If not, then we are forced to believe that the water was there before he was chloroformed, and was not incompatible with a comfortable existence. For my part, I would prefer to walk around this world with a little water in my brain than to be a dead man from chloroform.

The truth is, Mr. Editor, the last scene in this case was a farce, which, while being played by the coroner and jury, diverted the attention of the public from those who were the unwilling cause of this young man's death. Such farces have been and will continue to be of frequent occurrence until the present coroner system shall be a thing of the past, and in its place a board of scientific inquirers appointed which is competent to elicit the facts from an investigation of similar cases.

It is now generally admitted that in every two thousand inhalations of chloroform one person dies. If this seems a trifling risk, let us compare it with another that the world accepts as terrible. I have somewhere read that at the battle of Gettysburg one man was killed to each six thousand cannon and musket balls discharged. If this be true, a man might engage in three such battles as that was and stand a chance for his life as good as that taken by one who submits to chloroformization.

But must the world give up the great boon of anesthesia because chloroform is such a dangerous

agent? Fortunately we have another, sulphuric ether, whose use the whole world knows is almost absolutely free from danger. It requires more tact to anesthetize one with ether than with chloroform in a given number of minutes. Has not the world a right to expect this increase in skill on the part of one who assumes the responsibility of an operation?

I have no wish to add to the remorse of one who is so unfortunate as to be the means of destroying a young man's life with chloroform. Such a person needs all the comfort to be extracted from such gloomy circumstances. In this case, if it can be found in the five tablespoonfuls of water present in the brain, I can but congratulate the responsible parties upon the natural buoyancy of their spirits.

One word more, and this will define my exact position upon this question: I believe the law would be a just one, and not more stringent than is necessary for the protection of those who are forced to be the subjects of anesthesia, that if a person who is to anesthetize another neglect to use the agent which the world believes to be the safest, and death result, he shall be liable to indictment, and to greater punishment than that unfortunate druggist who kills another by giving him five grains of strychnine instead of the same quantity of quinine.

PAYSAN.

TRANSACTIONS OF SOCIETIES.

Chicago Gynecological Society. Twelfth regular meeting, Dec. 19, 1879. President Dr. Wm. H. Byford in the chair. Two papers, with discussions. Reported by Dr. Edward Warren Sawyer, secretary.

Intra-Uterine Coal-Gas Poisoning of a Fœtus at Term.

BY D. T. NELSON, M.D.

On December 4, 1879, Mrs. W., after walking some two miles, retired at 11 P.M. somewhat fatigued. She was daily expecting confinement with her first pregnancy. During the evening she noticed more than usual motion of the fœtus. Liquor amnii began flowing at 11.30 P.M. and continued during the night, but as uterine contractions did not begin I was not sent for till the following morning. On making an examination December 5, I found the os but slightly dilated, the bag of waters gone, and the head presenting in the first position, the occiput to the left.

The house the family lived in is an ordinary six-room cottage; two parlors, and a kitchen in the rear, with small bed-rooms, some seven by nine feet, leading out of these larger rooms. There are two windows in the front parlor, and one in each of the other rooms.

The family consisted of the husband, wife and her mother. The husband and wife are both of nearly the same age, height and weight,—21 years, 5 feet 4 inches, and 125 pounds; the mother is 42 years old, weight 190 pounds, suffers at times from sick headaches. All were in excellent health on December 4. There was a stove in the kitchen, but as the

other chimney needed repairing, no stove had been put up in the parlor, the weather having been very mild. But on Friday morning, December 5, the chimney was repaired and the stove set up in the back parlor, and a fire lighted about noon; pine kindlings and hard coal being used.

The stove smoked so badly that the family was obliged to retire to the kitchen, where they remained till 7 P.M., shutting the doors and opening the windows in the two middle rooms. At 7 P.M. the smoke and gas seemed to be out of the rooms, only the odor of pine remaining; the hard coal not looking red the fire was supposed to be out, and the windows were shut, also the door into the front parlor; the back parlor and kitchen being connected by an open door, also the two bed-rooms leading out of these. The window in kitchen bed-room was also open, but none of the other windows; the stove was shut tightly. At 10 P.M. the mother retired, and the husband and wife at 11.30 P.M., all suffering from headache, supposed to be the result of the smoke inhaled during the afternoon. The mother and pregnant daughter retired to the bed-room out of the back parlor, the daughter on the side of the bed next the door, and with her head some seven or eight feet from the stove; the husband took to the lounge on the side of the back parlor opposite the stove, and some seven feet from it.

At 1.30 A.M. the mother began vomiting, which continued from time to time. At this time, finding her headache growing worse, and fearing the close air of the bed-room was the cause of it, and also of the vomiting, she exchanged beds with the husband, and thus they remained until 3 A.M., when the husband got up to aid his mother-in-law, who was vomiting severely.

On coming out of the bed-room he fell backward upon the floor of the back parlor. All agree that he fell backward, and not forward, as in fainting. On getting up he stared vacantly when questioned, and answered intelligibly only after some hesitation. He vomited about six in the morning. The wife occupied her bed all night, but did not sleep, on account of severe pain in the head, in the occipital region. Her husband and mother suffered from frontal headache. At 4.30 A.M. all removed to the kitchen, shutting the door and remaining until 6 A.M., when the stove was removed from the house. The wife vomited several times during the night after two o'clock. At 5 A.M. the occipital pain left, and labor-pains began. Thought she felt a quiver in the foetus at 6 A.M., but except this felt no motion of the foetus after the discharge of the liquor amnii. During first stage of labor nothing unusual was noticed for a dry labor, except a tendency to "bear down," as in the second stage, and a blueness of the face, which at the time was supposed to be due to the interference with venous circulation in holding the breath, and she was repeatedly requested not to bear down so hard. The second stage lasted about an

hour, and the babe was born about 1 P.M., December 6. On the delivery of the head I was surprised to find something impeding the progress of the remaining parts. Making a careful examination, I found the arms firmly flexed about the neck, and so rigid that the elbows considerably impeded the further progress of the foetus. With not a little difficulty one arm was unclasped from the neck, and labor was easily terminated. I was then astonished to find all the limbs were rigid and flexed, the muscles of the trunk were in a state of tonic spasm, the whole surface livid, but not as dark as often seen in asphyxiated labor. No pulsation of the heart or attempt at respiration.

The lower extremities were so firmly flexed that certainly one of them did not straighten during delivery. The rigidity was much the most marked on the left side of the body, and while the blueness nearly all left the extremities in a few hours, this tonic spasm had not entirely gone in the left limbs when it was removed for burial, twenty-four hours after birth.

Convalescence was not marked by any special peculiarities, except more after-pains than are usual in primiparæ; during the first afternoon corn-ergot was given in half-teaspoonful doses three times a day, to insure uterine contractions and aid in preventing the filling of the breasts. Twenty-eight centigrammes of quinine were also given to try to prevent fever, which I most feared. Directions regarding the breasts were carefully followed, and they were "*let entirely alone*," except the application of hot greased flannels, held in place by bandage about the chest. They were not rubbed nor the milk drawn once, and by the fourth day the uncomfortable distention was gone. The blueness of countenance noticed during the labor disappeared in a day or two, and was replaced by an unusual pallor, considering there had been no hemorrhage.

REMARKS.

It will be noticed all were inhaling the poisonous gases the most of the time from 7 P.M. to 4.30 A.M. All suffered from headache, two with frontal pain and one, the pregnant woman, with pain at the occiput.

The stove was shut so tightly that the slow combustion formed carbonic oxide, much more poisonous than ordinary carbonic acid; and it was this gas, I believe, which poisoned the adults and killed the foetus. Was the tonic spasm of the muscles a peculiarity of the effect of this poison?

All the fingers were firmly flexed on the hands, and the hands on the wrists as well as the elbows contracted. The toes and feet were curled up, and legs rigid upon the abdomen, but knees not flexed. The color of the foetus was also noticeable, being more of a reddish-blue or purple than in ordinary cases of asphyxia.

DISCUSSION.

DR. JENKS (present by invitation) said that it was a fact generally known that poisoning from smoke

and coal-gas excites the woman to abort. He alluded to the account in history of a general who attempted to smoke a large number of men and women out of a cave in which they had taken refuge; it was afterward ascertained that all the pregnant women had aborted. But the speaker had never known of an instance like that reported, when the fœtus was asphyxiated in the woman's womb.

DR. ROLER asked if it was not carbonic acid which was given off in combustion, and if this was not the dangerous compound.

DR. NELSON thought the tonic spasm, as seen in the fœtus, was the effect of carbonic dioxide poisoning.

DR. HATFIELD (present by invitation) said that a smouldering fire, such as was described by Dr. Nelson, gave off carbonic dioxide, and that one toxic effect of this gas was convulsions. He had once seen convulsions in an adult produced in this manner.

In answer to a question by Dr. Miller, Dr. Hatfield said that coal-gas acted as a poison in two ways: first by excluding oxygen from the blood, and second by a specific poisonous effect, by which it destroyed the oxygen-bearing property of the red corpuscle.

DR. SAWYER alluded to the fact mentioned by Caspar, that *post-mortem* rigidity does not occur in the immature fœtus, and is not present in the still-born; so that the appearance of the fœtus in Dr. Nelson's case could not be explained as cadaveric rigidity. The speaker said, moreover, that it was interesting to note that Cazeaux speaks of delivering a woman in eclampsia with the forceps, whose dead-born fœtus presented an appearance described by Dr. Nelson; he alludes also to a similar case mentioned by Prestat. The absence of everything like eclampsia in the case in point impelled the speaker to accept the explanation given by the reporter, and he thought it an interesting and important case to be put upon record.

THE PRESIDENT said that, while he would not question the explanation of the case given by Dr. Nelson, it should not be forgotten that still-borns are by no means infrequent where no cause could be assigned.

In answer to a question by Dr. Sawyer, Dr. Byford said that, excluding the possibility of such cases as spoken of by Cazeaux, and the case in point, still-born children are always flaccid.

DR. NELSON said, in answer to a question, that the urine of this patient had never been examined; there was nothing whatever in connection with the case to suggest a condition favorable to eclampsia.

Sudden Death during Puerperal Convalescence.

BY E. O. F. ROLER, M.D.

Mrs. V., a lady of decided nervous temperament, and who had in previous years to some extent suffered from chronic uterine disease, was taken in labor with her third child at the end of her computed time of pregnancy. I arrived at the bedside two or three

hours after its commencement and found the contractions moderately efficient and recurring rapidly. The patient was nervous and very despondent, a condition which had existed, as I learned, for several weeks before her confinement. On examination I found the membranes bulging through a half-dilated os, the parts yielding and seemingly in a favorable condition. At the end of an hour the head had cleared the os and immediately engaged in the inferior strait. During the next hour and a half I expected the head would be expelled through the half-dilated vulva with almost every pain, but it was of large size, and the bearing-down efforts short and imperfect. Finally they slackened and the pulse became more rapid, although I did not regard the symptoms as indicating special exhaustion. Taking my small forceps I applied them without disturbing the posture of the patient, and with three or four easy pulls in conjunction with the pains the head was delivered, the body following immediately afterward. The uterus contracted promptly, and the third stage was completed within a few minutes. The patient went into a profound chill immediately after the placental delivery; not a mere chilliness such as is often observed after intense physical effort in labor, but the pulse became feeble, the face and lips blue, and the entire surface of the body had a cadaveric coldness. After plentiful stimulation with hot applications reaction ensued, but was not followed by any febrile phenomena. The uterus contracted firmly and no hemorrhage whatever followed. On visiting the patient in the evening, about ten hours subsequent to the labor, I found her restless and complaining bitterly of the excessive heat. I will remark that the day was one of the warmest of August weather, and her room directly under the flat roof of a wooden building, where the heat was so oppressive to myself that I scarcely could endure to remain in it. Next morning I was called hurriedly with the information that the patient had a severe chill. I found her trembling violently and exceedingly restless. The surface of the body was warm, and she could not affirm that she felt chilliness, but that she trembled and could not help it. She insisted that the heat was unendurable, and that it was the cause of all her discomfort and suffering. This trembling fit was not followed by any feverish reaction. The catheter had to be used only during the first forty-eight hours. During the day the patient was removed to the parlor below, a large airy room with good ventilation. She was delighted with the change and thought she would be comfortable.

The next morning, the end of the second day, I found she had slept a portion of the night, but not refreshingly. She was disposed to attribute it to annoyance at the old nurse, who had lain by her and slept heavily, and, as she thought, had not given her proper attention. On examination I found the uterus well contracted, lochial discharge moderate, and in every respect, excepting a slight nervousness, the pa-

tient's condition seemed to be favorable. During the afternoon I was again summoned in great haste. I found she had had another attack of shivering, or, more properly, trembling, as she could not say that she had any sensation of cold, and the extremities were of normal warmth. She was, however, in a state of great excitement, disposed to be somewhat querulous with every one, and especially with her old nurse, toward whom, without any apparent reason, she had taken a great dislike. The heart's action was somewhat excited during the evening, but of good strength, and the thermometer showed no increase of temperature. She perspired freely and complained bitterly of the heat, which, however, was not excessive in the room she now occupied. She was given at intervals bromides with elix. valer. am. to quiet restlessness, and 14 centigrammes of quinine every four hours during the day, and imperative order given to keep in the recumbent position. On the morning of the third day an enema was given, which caused a free evacuation. During the afternoon of the same day she again had a severe chill. I did not reach the bedside until it had subsided, but now found from the assurance of the patient, as well as her attendants, that there was a well-defined chill with decided coldness of the surface. The mammæ had begun to enlarge during the day and the glands were painful to the touch. She now also complained of slight pain in the uterine region, although she permitted free pressure over the hypochondrium without speaking of tenderness. The chill was followed by decided fever, and during the night she was sleepless and restless, talking a great deal, and not entirely rational in her expressions. She was given the following mixture every four hours alternately with 1 gramme bromide of sodium:

R—Liq. ammo. acetatis, }
 Camph. tinct. opii, } āā grms. 30.
 Tinct. Gelsemii, grms. 8.

As the discharges had become slightly offensive, carbolized injections into the vagina were ordered, and a poultice over the abdomen. Next morning the temperature was $103\frac{1}{2}^{\circ}$, pulse 118, patient restless, talking incessantly, taking the form of mental perversion. She charged especially neglect and inattention on the part of her nurse, to such a degree that it was deemed advisable to discharge her and get another. She insisted also that her husband annoyed her by his assiduous attentions. I prescribed 2 grammes quinine in 70-centigramme doses, to be given at intervals of six hours during the day. This brought down the temperature completely, and by next morning, the fourth after confinement, it was normal and the pulse 80, but there was a singular phase of the mental condition. She had not slept at all during the night, although bromides had been administered, and she now seemed in a semi-hysterical state, singing, laughing and crying at times, and insisting that she was in heaven with her husband and children, yet would answer questions rationally when

her attention was strongly attracted. I prescribed 84 centigrammes of chloral every two hours unless asleep, the fever mixture to be discontinued and 14-centigramme doses of quinine instead. This acted like a charm. With the first dose of chloral she became calmer, and after the second and third she went into a calm, refreshing sleep, from which she awoke at intervals composed and perfectly rational. To be brief, I will state that from this time there was not the slightest manifestation of fever or mental disturbance. Her appetite gradually improved, she became cheerful and hopeful, and with tonics occasionally administered, and sometimes bromides at night, her convalescence seemed fully established. She complained, however, of tenderness in the uterine region, and although involution seemed to be taking place I satisfied myself, from repeated examination, that the organ was slightly tender along the lateral regions.

After the eleventh day, without my knowledge, however, and against my general directions, which I thought were still followed, she was allowed to assume the erect position at stool, although I found her occasionally in the semi-erect position, to which I did not object. Indeed, with the exception of some soreness in the pelvic region, she seemed to be in the ordinary puerperal condition, with good pulse and every symptom favorable.

On the twelfth day she complained of pain on micturition which made her nervous and distressed her considerably, and for which I prescribed equal parts of paregoric and spirits minderiri, the mixture to be given occasionally in 4-gramme doses. About 3 P.M. of the same day she was assisted upon the chamber in order to urinate, and while in the act, and complaining that the pain was not at all lessened, she suddenly exclaimed: "Help me back to bed, I feel so strange." Before this could be done, however, she fell to the floor. Her husband after helping to lift her into bed ran out to my house. She called out feebly: "Tell my husband to come," or words to that effect, and expired almost in the moment.

The case, as briefly described, presents some peculiar features aside from the suddenly fatal result.

Without going into details of discussion myself I would like to obtain an expression as to the cause of the unusual degree of nervous disorder which antedated any of the morbid phenomena connected with the lying-in state, and which for a time remained to an exaggerated extent after these phenomena had been brought under control. The amount of depression following the completion of the third stage, and before the patient had been subjected to the prostrating effects of the heat, was indeed alarming. Her condition up to this moment seemed to be an ordinary phase of the lying-in state, but the pulse failed suddenly and the entire appearance of the patient for a few minutes was that of fatal collapse, and such a result I think would have occurred had not the treatment been prompt and energetic.

The nervous disorder and mental aberration con-

tinued, as has been stated, until controlled by special remedies after the febrile symptoms had disappeared. Lastly, the sudden and entirely unexpected death of the patient. Was it embolism or syncope?

I think with the vigor occurring on the third day a moderate grade of endometric inflammation was developed, especially over the placental area. Under the therapeutical management, however, it was speedily checked, but was probably followed by a slight amount of septicæmic infection. The reparative changes about the torn extremities of the sinuses were probably interrupted, the blood clots finally breaking down in the process of disintegration found easy access into the circulatory system, and may or may not have been a factor in bringing about a fatal result.

DISCUSSION.

DR. MILLER regarded the case which had been reported as one of great interest. Concerning the cause of death, there were many factors which contributed to the exhaustion of nerve force. Among them were the excessively high temperature of the lying-in room; the slight delay in the latter part of the second stage of labor, a delay which required the use of the forceps. But the practical point was the upright position which the woman assumed so early during the convalescence, and which was undoubtedly the immediate cause of dissolution.

The speaker dwelt upon the importance of a much longer time spent in bed, upon the back, than generally obtains among puerperal patients in this country.

DR. MERRIMAN said there were many things to be inquired into in a case like this. Was it uræmia? Was it embolism? Was there evidence of disease of the heart?

DR. ROLER here stated that he had examined the patient's urine and that it presented no evidence of disease. The heart too was apparently free from disease.

DR. MERRIMAN in resuming said that uræmia and heart disease could be excluded. The speaker then gave the history of embolism, and expressed his belief that death from this cause would be unlike that in the case in point. He was of the opinion that it was an instance of fatal syncope.

DR. FITCH also thought the death one from fatal syncope. He fully agreed with Dr. Miller concerning the importance of a longer puerperal convalescence in bed.

DR. SAWYER said he was glad that the speakers preceding him had put themselves upon record as against the ideas of Dr. Goodell, of Philadelphia, and which he held to be most pernicious: that a confinement is not to be looked upon as an interruption in health, and that the lying-in woman should be encouraged to shorten the time spent in bed.

In relation to the cause of death in Dr. Roler's case the speaker said that he had witnessed a number of instances of as sudden death as that of the subject of the report, occurring after a long siege of typhoid

fever, in which the explanation given was paralysis of the heart. Whether the want of blood in the brain, syncope, was the cause of the paralysis, or the paralysis occurred per se, was a point which he could not decide. He believed a death from cerebral embolism less sudden, and essentially unlike the death in this case. The speaker thought it was not too much to say that the conduct of the persons who allowed the patient to be raised to the upright position, in direct opposition to the injunction of the attendant, was alone responsible for the woman's death at that moment.

THE PRESIDENT said there were many facts in this case which indicated a feebleness of nerve power which admitted of easy, fatal exhaustion: the state of the mind, the hysteria and the chill. He had seen three deaths occurring in this manner before the eighth day, all happening when the patient was at stool, and all, he believed, due to fatal syncope.

While he agreed with Dr. Miller in the whole, he was not in favor of universally following the rule of keeping the puerperal woman a month in bed. Patients like the subject of Dr. Roler's report should be treated differently from many others, and should not under any circumstances be allowed to assume the upright position at an early day.

ORIGINAL CONTRIBUTIONS.

LACERATED CERVIX UTERI A PROBABLE CAUSE OF RECURRING ABORTIONS.

BY S. V. CLEVENGER, M.D.

Mrs. X, married in 1865, is the mother of four children: the last child was born April 22, 1872. She had experienced no unusual difficulty previous to, during or after each labor. August 31, 1873, without any apparent cause, she aborted a three months foetus; made a good recovery speedily, and upon the same date the following year, after a long walk, miscarried again a four and one-half months foetus. Six weeks previous to this, at the third month of pregnancy, began the daily recurrence of vaginal discharges of an ounce or two ounces of blood, lasting one or two hours each time. On the 11th of February, 1876, after moderate exercise, another abortion of a three months foetus occurred with such violent hemorrhage as to endanger her life, and cause her confinement in bed two months.

Neurasthenia followed, from which she has never fully recovered, subinvolution, inflammation and ulceration of the uterus being the alleged causes of her nervous derangement; cauterization of the cervix was advised by skillful gynecologists, but fortunately was not permitted. This condition, unrelieved, existed till December, 1878, when I advised the use of hot water vaginal injections, and the application of glycerine plugs. Immediate benefit to the patient resulted from thus relieving the congestion of the parts, and she has since this time enjoyed better, though without fully recovering, health.

In common with many other practitioners, I knew nothing of Emmet's demonstration of the pathological importance of cervical laceration, receiving my first information on the subject from Dr. E. C. Dudley, in July of last year. An examination revealed laceration of the cervix, through both ora. Assuming that this tear occurred at the last full term labor in 1872, it seems probable that the following miscarriages were due to the want of cervical integrity. The everted edges of the cervix, with consequent "rolling out" of the intra-uterine tissue, would afford poor support for the contents of a gravid uterus. The recurrence of the abortion at the third month in the two cases, and its commencement in one case, would indicate that at this period the contents of the sac had acquired sufficient weight and size to press aside the feebly resisting false cervical walls, thus permitting the gravitation and expulsion of the foetus and its appendages. That placenta prævia did not exist in the first instance at least is known, nor was there any cause to suspect death of either foetus previous to expulsion.

That the laceration was the cause, it is now impossible to assert positively. This lesion may have taken place at any one of the preceding four labors.

[The history of the lesion as given in the case-books of the Woman's Hospital in the State of New York, and in the private records of Dr. Emmet, and in our own records, proves the correctness of the views above expressed, although, so far as we are aware, these views have not hitherto been specially published.—ED.]

NEURASTHENIA AND HYSTERIA.

Cure by Massage, Rest, Feeding, etc.

BY STANBURY SUTTON, A.M., M.D., PITTSBURGH, PA.

To Dr. S. Weir Mitchel, one of the most accomplished of American physicians, we are indebted for a thorough understanding and introduction to the profession of the process known as massage. To him also belongs the honor of having devised the method known as the "rest cure," which has proven so beneficial in a class of cases constituting an "opprobrium medicorum." He defines this class to be "chiefly women—nervous women, who as a rule are thin and lack blood"—treated in turn for gastric, spinal or uterine troubles, but who remained at the end, as at the beginning, invalids, unable to attend to the duties of life, and sources of discomfort to themselves and anxiety to others. The rest cure is defined as consisting of "rest, systematic feeding and passive exercise." Rest, absolute rest in bed, feeding by hand at stated intervals and stated quantities; passive exercise gained by the application of massage and electricity. Since the publication of Dr. Mitchel's terse treatise on this subject, entitled "Fat and Blood," other valuable papers have appeared on the subject, but no one after Dr. Mitchel has done more to popularize this method than Dr. Wm. Goodell, the elo-

quent professor of gynecology in the University of Pennsylvania. In his late work, entitled "Lessons in Gynæcology," will be found a valuable paper on Dr. Mitchel's method. For two years I have given considerable attention to this method of treatment. My experience has been conducted in my private hospital with the aid of good nurses, and unremitting attention to all the phases of treatment as the opportunity presented. The following report of a single case may be of interest:

In the early part of the winter of 1877-78, I was taken to the neighborhood of Tarentum, twenty miles from the city, to see, in consultation with Dr. George Galbraith, Mrs. P. D. A. I found a lady of culture, in bed, where she had been most of the time for many months. Beyond a slight prolapsus, with some disposition to retroversion, she had no uterine disease. She was thin and anæmic, and very nervous. Tenderness existed all along the spine, and she complained of much pain at the coccyx. She was dyspeptic, and suffered much from constipation. She had a well-marked anal fissure. She had a dread of cold air or water, and generally remained in bed. I was the tenth physician called to her case. We etherized her and I dilated thoroughly the sphincter ani. She was left to continue the line of tonics which Dr. Galbraith was giving, and encouraged after another week to try to get about. Five months passed away, and her husband again sought my assistance. I declined to visit her, but offered to treat her by Mitchel's method, provided he would bring her to my house, and agree that no friend should see or communicate with her until I permitted it. The agreement was made, and on the 7th of July, 1878, she was carried into a railroad car, brought to this city and to my house. Her friends bade her good-bye in the parlor. She was a woman of more than ordinary will-force, of dark complexion, and thirty-four years of age. Thirty-two months of almost constant confinement to bed had elapsed. She was on the alert, and had considerable misgiving about her new project. Her weight in health was one hundred and forty-five pounds. The nurse assisted her to her room, and after removing a suit of heavy winter clothes, including flannels and woolen stockings, and putting her in a linen night-gown, found her weight to be ninety pounds. Her emaciation was very marked, all the bony prominences very visible. In the evening she received a tepid sponge-bath with soap, was dried and given immediately a tepid salt-bath, followed by a good rubbing with a towel. On the following day she was put on Mitchel's rest cure, minus the electricity. In the second week she was taking four pints of milk daily; in the third week the milk and one meal, and in the fourth week the milk and three hearty meals, with wine for dinner. Full doses of fluid extract of malt and pyrophosphate of iron were given three times a day, and a laxative pill of ox bile and extract of aloes at bed-time. Her progress was steady and rapid; at the end of eleven weeks she had gained

twenty-seven and a half pounds of fat and blood, and walked to the depot and took the train for home. The first eight weeks of her stay in the house were spent in bed, and she was fed by the nurse. She rode out in the ninth week, and learned to walk well in the tenth and eleventh. She continued to take the malt and iron, after her return home, for three months, and continued to gain in weight until her old weight of one hundred and forty-five pounds was attained. It is about one year since she returned home, and she remains well. I have since treated four cases through the programme of the "rest cure."

In two of these cases the recovery was excellent and the results seem permanent; in a third case the seclusion was not absolute, inasmuch as the patient was permitted to have a child with her for enough of the time occupied in her treatment seriously to interfere with the result; however she gained in flesh sixteen pounds, and looked much improved when she left the house. The fourth patient gained about eleven pounds, and lost the sallow complexion by the increase of red blood corpuscles; but, when still at least ten pounds under proper weight for her, expressed her disgust at her full face and generally improved condition, declaring it vulgar. This case was also complicated by being too near her friends. Seclusion in these cases must be absolute, and every member of the patient's family must abandon her to the physician; and where there is a fixed determination in the mind of the patient to be a martyr, or an idea that thin blood, sallow skin, and a continual devotion to invalid habits is interesting and intellectual, there is not much to be hoped for. You may scold and entreat, but you may as well save your breath, especially if the patient be near the age of forty years.

As a method of passive exercise massage is wonderful in its perfect adaptability. The patients enjoy it, improve under it, and the tissues increase and grow firmer.

I commend to all who desire to try this method of treatment to study Dr. Mitchel's little book entitled "Fat and Blood." The details as given in this brief but admirable treatise will admit of no compromise with the notions of the laity or of a novice in the method. So essential is strict conformity to his teachings that I can, from personal experience, say that nothing short of absolute adherence to his instructions will do. When I have disobeyed these instructions I have failed, when I implicitly obeyed I have had reason to be gratified. Minute details must not be lost sight of for a day, and even the risk of being denounced as tyrannical is small compared with being upbraided for making a failure.

The question of nurses is a very serious one. But few nurses are capable of properly managing these nervous women. They soon form partnership with them, and deceive the doctor in the most adroit manner. They humor and indulge the patient in all her whims and caprices, and make it necessary even in the midst of her treatment to change the nurse. It

is not therefore a good plan, but a very bad one, to have the nurse give the daily massage — a good masseuse may be for the patient a very poor nurse. This I have experienced. If but one masseuse is at the command of the physician, he will save himself trouble if he will prohibit her from acting as nurse to any whom she manipulates.

Electricity was used in four cases and not at all in one. It does not seem absolutely necessary. Central galvanization with general exercise of the muscles with the interrupted current were the methods of application. The question of seclusion is one of the most important. The patient must be *absolutely separated from every member* of her family, and a *quarantine* be established so completely as to admit of no mistake, and through which no sort of communication can go on. If this cannot be done the case is better tried by some other method than this one. So fully am I convinced of the importance of this feature of Mitchel's method that I shall not attempt to treat a case in the future where a shadow of doubt can be entertained in regard to this point. The failure fully to appreciate the importance of this feature cost me more annoyance in three of my cases than I ever experienced in five years of general practice. If the patient be in a boarding house, it is a good rule that the landlady and the patient do not meet until the patient recovers.

The moral drill in some of these cases is very trying, yet cure is not to be completed without it, and the sooner these patients are informed of their unblushing selfishness and utter disregard for their duty to husband, father or mother or friends, the better. Obedience should be exacted in everything pertaining to their treatment, and all whims should be disregarded. The selfishness of this class of patients is beyond computation.

Let him who puts one of these patients to bed be sure he can get her up again. At the end of eight weeks' treatment one of my patients refused to be dressed, and no amount of persuasion on the part of the nurse would induce her to have her clothes put on, and it was only after I threatened to play the maid myself that she consented to let the nurse dress her. In two weeks from that time she was out at the stores.

Massage for convalescents is delightful passive exercise, also admirable for the incurables we occasionally have to deal with. It develops atrophied muscles, refreshes those tired and bed-ridden. In many cases of insomnia it is followed by refreshing sleep. In Dr. Mitchel's book there is one word which I know has misled. The word is "pinch." It is the only word in the book I object to, and it is because it conveys the idea of a motion which gives pain. This he does not intend. Press would, I think, be a better word. The whole process of massage is delightful when skillfully executed, and will be of immense assistance to the profession. Thanks to Dr. Mitchel for bringing it in good shape before us.

146 Penn Street, December, 1879.

Chicago Medical Gazette.

PUBLISHED ON THE 5TH AND 20TH OF EACH MONTH.

OFFICE OF PUBLICATION, 70 MONROE STREET.

TERMS, \$2 A YEAR, IN ADVANCE.

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VOLUME I.

CHICAGO, FEBRUARY 5, 1880.

NUMBER 3.

PEPSIN.—Notwithstanding the pretentious claims of manufacturers and the cordial endorsement of eminent professors, pepsin as commonly prepared and administered is of doubtful value. Until recently the most claimed for it in seriousness was, that it would dissolve, with the aid of muriatic acid and at the temperature of the body, six times its weight of hard-boiled white of egg within a period of from six to twelve hours. Assuming that manufacturers do not make it a point to understate the merits of their products, we are left with the conclusion that an ordinary dose of the digestant, even when aided by muriatic acid, will not dissolve more than a drachm of coagulated albumen. Going a step farther, and regarding the possibility of the claims of advertisers exceeding the real value of their several wares, we find ourselves wondering how much of the good effects ascribed to pepsin is in reality due to its influence, and how much is due to the associated medication and the carefully regulated diet. Not resting here, but remembering that, so far as is known, the agent acts in no other way than by increasing the solvent power of the gastric juice, and remembering especially that it is not known to increase the quantity of the secretion, we find ourselves asking why it is so extensively employed, and who, in the treatment of the gastric disorders of adults, has ever been able to trace good results directly to its activity. In the stomach of a baby, when it is of good quality and in reasonable quantity, it undoubtedly renders efficient aid to digestion; but considering its intrinsic feebleness, the difficulty of administering an effective dose to infants, and the prevalent absurdities of combination whereby it is known to be rendered quite inert, we may well ask, has not its utility been enormously overestimated even here? Pepsin unaided by acid is almost useless. We are disposed to insist on the recognition of this fact because many

physicians seem to think that, in infantile disorders, acids are always contraindicated and alkalies are never inappropriate. This is an error: alkalies are incompatible with pepsin. We do not wish to be understood, however, as implying that it is necessary in all cases to give the digestant in admixture with acid, for a sufficiency, and even an excess, of acid may be secreted; but it cannot be kept too closely in mind that when an acidulated solution of pepsin is rendered alkaline it thereby loses permanently its solvent power over albumen. It is well to remember, too, that alcohol, astringents and (except when in very minute quantity) salt impair, and may even destroy, its activity. The impropriety is at once obvious of prescribing the agent in admixture with antacids; and the absurdity is apparent of expecting important results from the use of the proprietary "wine" and "elixir." It must be dissolved in acidulated water in order to be of maximum activity; and less than maximum activity is never required by the exigencies of disease.

We are aware that recent and excellent authority may be cited for a better opinion of digestants than we have implied in the preceding lines. The National Dispensatory, for example, refers to a certain *purified* pepsin which will dissolve three thousand times its weight of albumen "in a few days"; and also to the same article, *saccharated*, which will dissolve twelve times its weight in five or six hours. If these claims be well founded, the particular quality of the ferment referred to is entitled to a high place in professional esteem; but the claims are so much greater than have ever been put forth in relation to the products of other processes of manufacture, that we cannot help suspecting an error has been committed by the printer. The problem is so simple, however, that it is not necessary to remain long in doubt concerning the precise status of the articles in question. With a

view to satisfying our minds we have performed a series of simple experiments embracing all the digestants in common use. Our object has not been to establish the superiority of any particular product, for, no matter how praiseworthy such an attempt might be, it would be sure to lead to a suspicion of interestedness—to say nothing of charges of duplicity from the unappreciated rivals. Consequently we feel obliged to limit our remarks to generalities; premising, however, that the specimens selected represented the quality of the various agents as they are dispensed by reputable pharmacists. The mode of proceeding was as follows: One drachm of albumen cooked to moderate hardness, and finely divided, was macerated in a mixture of ten grains of the ferment, five drops of muriatic acid and one ounce of water; and the mixture was frequently shaken, and kept at a temperature of 98° or 100° F. by means of a water bath for twelve hours. At the expiration of the time indicated the mixture was filtered and the undissolved portion remaining on the filtering paper was air-dried and weighed. By subtracting the weight of the dried residue from the weight of the albumen used we determined the amount lost by solution and evaporation. As is well known, albumen varies considerably in the quantity of moisture it contains, and in order to make conclusions trustworthy it is necessary to determine with exactness how much of the difference in weight between the dried residue and the albumen employed is due to actual solution and how much to evaporation of the moisture of the undissolved portion. This was done by taking another drachm of albumen from the same egg and treating it in every respect as we did the portion above referred to, with the single exception that none of the digestant was added to the mixture. The processes of macerating, shaking, filtering, drying and weighing were conducted exactly alike in both cases. In the latter case, no digestant being employed, the difference in weight between the dried residue and the freshly cooked albumen is plainly due to evaporation. This serves as the basis of computation, for the difference in weight between the two residues is plainly due to the fact that in one case some of the albumen had been dissolved and had passed through the filtering paper.

We have tested in this way, and in other ways, ten specimens of pepsin, some of which were said to be pure and some were admitted to be diluted with starch or sugar. Our experiments also included ingluvin and various compounds of pepsin. As the result of thirty observations we have concluded that ten grains of pepsin aided by five drops of muriatic acid will dissolve eight grains of albumen in twelve hours. This is the average result, the extremes being 0 and

twenty-four grains. The latter is the largest quantity we succeeded in dissolving with any of the digestant mixtures, and this notwithstanding that we tested carefully and repeatedly the articles mentioned most favorably in the National Dispensatory. Some of the specimens used were utterly worthless. Neither ingluvin nor the various compounds of pepsin are more energetic than pepsin, and there is but little choice between them. Those compounds which are professedly ready for use without acid admixture, said to contain pepsin, pancreatine or ptyalin, already associated with lactic and muriatic acids, are not superior, since without the addition of one of the acids named, ten grains on the average will dissolve only two grains of albumen in twelve hours. In relation to ingluvin we found that for each grain used, half a grain of albumen was dissolved. Where a longer time than twelve hours was allowed, in the majority of cases a larger quantity of the albumen was dissolved. Our experiments were diversified in various ways. Thinking that a larger quantity of albumen might be dissolved if a larger quantity than we had used had been acted upon by the solvents, we tested the matter by mixing the quantity of solvent and of acid named with two ounces of albumen and a pint of water. We were disappointed in the result every time. These are the facts as they have appeared to us.

They not only justify the suspicion that physicians are deceiving themselves in relation to the utility of the various agents, but they excite the fear that two or three unscrupulous manufacturers are placing upon the market, under the name of pepsin, compounds wholly factitious, which do not contain a vestige of the principle named. It is exceedingly desirable that physicians determine the value of these things for themselves, and that they place no confidence in the ostentatious claims of dealers. We cannot conclude our remarks on this subject without directing attention to the flagrant want of discretion, to say nothing of the seeming indifference to truth, exhibited by some of our most distinguished professors, and especially the New York professors, in permitting themselves to figure in the extravagant advertisements of manufacturers and agents as the enthusiastic endorsers of unmitigated falsehoods. It is a melancholy fact that advertisements which are fortified by the names of our most distinguished teachers are often the very embodiments of Munchausenism. These gentlemen must either be ignorant of the fact that they are being used as a means of deceiving their confiding pupils and admirers, or a vast amount of veneration is being bestowed upon persons of very doubtful morality. In any case the gentlemen merit severe criticism for bearing public testimony in favor of proprietary compounds concerning which they

have never taken the pains correctly to inform themselves.

MEDICAL EXPERTS.—It is notorious that the present system of retaining medical experts to testify in court is neither conducive to justice nor in the interest of medical men. Neither the counsel, the judge nor the jury, to say nothing of the public, are capable of forming very valuable opinions upon questions confessedly involving scientific knowledge in a special direction. The incapacity of the popular jury to give due weight to the different opinions of professionals of various degrees of ability and honesty is verified in almost every criminal trial requiring medical testimony. The inevitable expense entailed on the prosecution and on the defense in calling scores of professional men in the progress of a trial, the result of which may depend upon the preponderance of voices rather than upon the character of the evidence, is a potent defect of this system. Justice is not to be weighed in a golden scale. A criminal trial involving medical testimony is frequently humiliating to the witness, and degrades the profession in the eyes of the multitude. The witness is humiliated when made the target of eminent and eloquent counsel, who have no interest in the establishment of truth; the profession is degraded by the malicious and shallow criticism of the press, of unscrupulous attorneys and of the mob. Sometimes color is given to this criticism by the irreconcilable statements of witnesses impelled by avarice, by ignorance and by the desire of notoriety, but who in no sense represent the profession. The American Medical Association and the state societies should take the matter in hand. The Gazette would propose a board of competent physicians to be appointed, whose duty it shall be to examine into facts of each case within its district, and under oath to render a full report of its conclusions. If the action of this board be not unanimous, let the minority report be received, and let them both be submitted upon the trial for what they are worth, and let these reports be the only evidence of the kind in the case.

LAPAROSPLENOTOMY.—The extirpation of the spleen has been (Küster, *Centralblatt der Medicinischen Wissenschaften*) performed twenty-five times for chronic disease of the organ, with five recoveries. The indications were: 1, Wandering spleen; 2, Hypertrophy from malarial poisoning or pseudo-leucæmia; 3, Cysts and suppurating echinococci; 4, Leucæmia. In the fourteen cases of leucæmia all the patients died either from hemorrhage or from septic peritonitis. The operation for wandering spleen seems to give the best result, probably because the pedicle is long, and consequently more easy to handle according to surgical methods, because the patient's

general health is unimpaired, and because of the absence of adhesions. The diagnosis between a tumor of the spleen and that of the left kidney may sometimes be difficult. The differential diagnosis consists in the relative position of the flexura coli sinistra to the tumor. If it passes anterior to the tumor we have a tumor of the kidney, if posterior, a tumor of the spleen. The operation for leucæmic spleen is, notwithstanding the death-rate of one hundred per cent, not yet to be discarded (Nedopil, Czerny). Since leucæmia is inevitably fatal, we should appreciate the necessity of operating early in the disease, while the tumor is yet small, and prior to the general failure of the patient's constitution, in order that the greater liability to inflammation and to secondary hemorrhage may be avoided. In four cases of recovery we have records dating from six months to nine years after the operation. No subsequent remarkable functional disturbances have taken place. The sufferings indicating the operation were in all these cases completely cured. The most scrupulous antiseptic method of operation is a *conditio sine qua non*. The incision in the median line is preferable to a lateral one. If extensive, short and firm adhesions be found, it is better to abandon the extirpation and to close the wound. As to the treatment of the pedicle, the best method is to ligate en masse and to return it. If the pedicle be very short, a portion of the tail of the pancreas or of the tissue of the spleen may be included in the ligature.

THE Alienist and Neurologist is the title of a new psychiatric journal published quarterly at St. Louis, and edited by Dr. C. H. Hughes. The first number, which has just come to hand, contains articles by Drs. Curwen, of Harrisburg, Penn.; G. M. Beard, Hughes, and D. V. Dean, of St. Louis; G. T. Stevens, of Albany, N. Y.; Pliny Earle and Allan McLane Hamilton, of New York. Several of these are of value, especially those of Dr. Earle on the Curability of Insanity. The general appearance of the number, though apologized for by the editor, is very fair, and as a whole it is creditable to its editor and publisher. From the introductory of Dr. Hughes, in which the future policy of the journal is sketched, we may infer that in regard to questions now at issue between alienists and neurologists, in regard to the management of the insane, it will support in the main the views of the American Association of Superintendents of Hospitals for the Insane. Considering that in many respects that organization, as at present constituted, is unprogressive, if not actually reactionary in scientific matters, we regret to be obliged to draw this inference. The association, however, needs an able advocate.

PARTIAL ABLATION OF THE UTERUS.—Perhaps there is no procedure which is to-day engaging the attention of gynecologists more than the removal of the uterus for various kinds of incurable disease. It is believed that the present generation of observers will so perfect the details of the operation that it will soon be looked upon as a resource quite as legitimate as ovariectomy, and as promising of success. The most recent step toward this end is the antiseptic way of performing the operation. Dr. Thomas Savage, of Birmingham, has recently recorded six cases of removal of a large portion of the organ. This note is indebted to the December number of the *Obstetrical Journal of Great Britain* for an account of these cases, the results of which will be read with interest. Case I was thirty-seven years old. Had had symptoms of fibroids for four years. Upon abdominal section many adhesions were encountered, which were overcome, and the uterus and growths were removed by amputation just above the cervix. The woman recovered. Case II was a woman of fifty-three years. Her menses had not appeared for some years. An exploratory abdominal section showed multiple fibroids of the uterus, and a double ligature was applied just above the cervix. A shriveled ovary was ligated. The woman recovered. Case III, the patient was thirty-eight years old. It was decided to remove the ovaries to relieve dysmenorrhœa and painful defecation. The abdomen was opened for this purpose, and a fibroid of the uterus was found. This growth was transfixed through its base and removed. The ovaries were also removed. The patient made a good recovery notwithstanding the fact that a portion of a needle was left in the uterine substance. Case IV, the patient was thirty-nine years old. An ovarian tumor had been diagnosed. Upon opening the abdomen a soft myoma of the fundus uteri was revealed. The uterus was removed just above its neck. The woman died on the tenth day from asthenia. No signs of peritonitis were found at the autopsy. Case V was thirty-six years old. Some days before the operation the circumference of the abdomen was thirty-six inches. The intumescence fluctuated upon one side, and contained two mobile medullar masses, rather larger than an orange, upon the opposite side. A sessile parovarian cyst was found, and a large myoma attached to the left side of the fundus uteri; the first was enucleated, and the fundus uteri, with growth, were removed. The patient recovered. Case VI, the woman was forty-one years of age. A growth as large as a foetal head was felt on the right of the uterus, apparently attached to the latter. A wire clamp was placed round the uterus low down and the mass removed. Recovery followed in this case, although the patient had a rigor on the fifteenth

day, and a pulse of 138 and temperature of 103°. Five recoveries from six operations: surely a showing which should encourage others to become practically acquainted with the operation, especially as the diseases which demand it are absolutely incurable. It should be remarked that the antiseptic mode of operating was followed, and that the entire uterus was not removed. The latter fact is of the first importance, because the shock from amputation through the womb is admittedly less than of complete ablation. In Dr. Savage's cases the clamp was left on the stump in four instances; in two only was the stump ligated and dropped; one of these cases died, but another patient was surely jeopardized by threatened septicemia. The important question to be answered by surgeons is: How shall the stump be managed in these operations? A future number will contain a summary of the literature of total extirpation of the uterus.

MARTINET, Thèse de Paris, 1879, notices the erythema from chloral which appears in certain individuals, especially after eating or the use of alcoholic liquors. He finds that it occurs only in certain individuals predisposed to its influence, that it is accompanied by palpitation and dyspnoea, often severe, but that there is frequently no fever and the duration is often brief. Witkowski, in a recent paper in the *Deutsch Med. Wochenschrift*, goes farther, and makes the practical point that those persons in whom the chloral rash appears, after the ingestion of medium or moderately large doses (2 to 6 grammes = 30 to 90 grains), are just the ones most liable to the fatal accidents that sometimes attend the use of the drug. It may therefore serve as a useful warning symptom in some cases indicating a weak and irritable condition of the vaso-motor system, counterindicating the further use of chloral. In such cases he says morphine, which first affects the respiration, and as a rule does not disturb the circulation, may be preferably employed for the same purposes. The question whether we have anything to fear on the side of the circulation must always be considered in choosing which one of these two agents is to be employed.

DR. J. J. CALDWELL, of Baltimore, treats whooping-cough by atomization with the following mixture: R—Ext. bellad. fl. gtt. vi-xii; Ammonii bromid. ℥i; Potass. bromid. ℥ij; Aqua distillat. ℥ij. The child is held in front of the steam atomizer, charged with the above mixture, ten or fifteen minutes, at morning, noon and bedtime, and the spray is brought in contact with the mouth, face and lungs. The treatment is said to be almost invariably successful in cutting off the spasmodic cough in two or three days.

THE ANTISEPTIC TREATMENT IN MILITARY SURGERY.—Reyher, in *Sammlung Klinischer Vorträge*, has given a series of statistics from the last Russo-Turkish war, bearing on the Lister-treatment of gun-shot wounds. The number of cases under observation was not large, as only a small minority of surgeons adopted or could carry out the method. Nevertheless the results are of the greatest import to the military surgery of the future, because the death-rate in severe lesions is considerably diminished by the adoption of the Listeran system.

Dr. Reyher classifies the treatment under two divisions: I. The primary antiseptic treatment applied to wounds which had not been subjected to any other surgical treatment previous to the antiseptic, but which had been left open for a longer or shorter time until the antiseptic treatment could be employed. The word "primary," therefore, is not used in accordance with the strict definition of Esmarch, who advises that every soldier be provided with materials for an antiseptic dressing, to be placed on the wound from the very moment of its occurrence. II. The secondary antiseptic treatment applied to wounds where the common surgical treatment has been employed for a longer or shorter period previous to the application of the antiseptic dressing.

Eighty-one primarily treated gun-shot fractures and penetrating gun-shot wounds of joints, with fracture, including primary resection and amputation, resulted in a death-rate of 6.1 per cent from pyæmia and septic phlegmonous inflammation; a piece of cloth pushed before the bullet into the wound in some cases may have caused septic inflammation, in spite of the most scrupulous antiseptic treatment. One hundred and forty-three secondarily treated fractures and opened joints were treated without operation (the intermediary resections or amputations always give bad results), and had a death-rate of 37 per cent from embolic pyæmia. Seventy-eight similar wounds of joints secondarily subjected to antiseptic treatment had a death-rate of 21.7 per cent from pyæmia. The primary antiseptic treatment may be either by antiseptic occlusion or drainage. The antiseptic occlusion, meaning absence of exploration with finger or probe, may be tried (*a*) in all flesh-wounds where no foreign bodies can be seen or, with reason, supposed to exist in the canal; (*b*) in fractures of the femur, because the disinfection of the wound is here exceedingly difficult or impossible on account of the large extravasations of blood burrowing between the muscles; (*c*) in wounds opening into the great serous cavities, pleura and peritoneum. If it be deemed necessary to examine the wound by finger or probe for the detection and removal of foreign bodies, this examination should not be under-

taken before everything has been prepared for the possible operations of washing out drainage, removal of spiculæ of bone, resection or amputation.

As to the question of the possibility of carrying out the antiseptic method in war, the author answers in the affirmative. It was not so much the want of antiseptic material for the dressings, or the increased amount of work required by this system, that caused a greater death-rate from pyæmia than he (Reyher) had anticipated, but more especially was it due to the fact that most of the surgeons were little conversant with the principles of this method, and consequently did not carry it out in all its details.

SANITARY CONVENTION AT GRAND RAPIDS will be held in Grand Rapids, Michigan, on the 17th and 18th of February, 1880. The convention will hold one session, the first day at 7 o'clock P.M., and three sessions the second day, at 10 o'clock A.M., 2 and 7 P.M. During each session of these conventions there will be one or more addresses or papers on some subject pertaining to public health, and of general interest, each paper to be followed by a discussion of the subject. President, Rev. Geo. D. Gillespie. Vice-presidents, Hon. Alonzo Sessions, of Ionia (Lieut. Governor); Hon. Henry H. Holt, of Muskegon; Dr. E. H. Van Deusen, of Kalamazoo; Mrs. S. L. Fuller, of Grand Rapids; Rev. J. Morgan Smith, of Grand Rapids; Dr. J. Andrews, of Paw Paw. Secretary, Dr. Arthur Hazlewood, of Grand Rapids. Invitations to be present at these conventions will be sent in the name of the State Board of Health to many prominent citizens and eminent sanitarians from abroad. Subjects to be presented: Opening Address; Health of the Young as affected by Schools and School Architecture; Conditions of Inflamability with Experiments; General Sanitation—its importance to the public welfare and a plea for better methods; The relation of the Clergy to Sanitary Reform; The duty of the Christian in regard to the laws of Health; Drainage in its relation to Health; Physical Development of Children; Volunteer Papers. The Secretary will be pleased to give any further information.

In the notice of Bert's method of anesthesia, in the last issue, it was said that the combined gases were administered under a pressure of thirty-six inches of mercury. Attention has been called to the fact that the language was not as clear as it was intended to be in indicating that external pressure was meant. In Bert's method the patient to be anesthetized and the operators must be in an air-tight chamber, within which the above pressure is to be maintained. It requires, therefore, an elaborate and expensive apparatus, which will prevent its general use.

FOREIGN BODIES IN THE EYE.—The danger arising from the presence of a foreign body in the interior of the eye is not yet fully understood by the general profession. How such bodies can remain in place for long periods of time without causing disturbance, and yet be a source of ever-threatening danger, is illustrated by two singular cases reported by Knapp in the last number of his Archives. A boy was struck in the eye by a piece of gun-cap, which did not cause any immediate complaint. The accident was forgotten, but from time to time the eye became red and tender. One year later the boy called upon Knapp for an acute attack of iridocyclitis. Besides the usual symptoms, there existed at the bottom of the anterior chamber an oblong, grayish-brown nodule, reaching with its pointed whitish apex to the transparent margin of the cornea, and penetrating with its body deeply into the rims of the anterior chamber, where its other end was concealed from view. The inflammation continued to increase notwithstanding all treatment. After some weeks the boy confessed the accident. Dr. Knapp now opened the anterior chamber downward with a narrow-bladed cataract-knife. With hook and probe the hollow nodule was torn, and a piece of metal about two mm. in size was extracted. The boy made a speedy and complete recovery, with but slight impairment of vision. In a second case a piece of metal perforated the cornea and wounded the iris and lens. Pain set in and the patient presented himself with traumatic cataract. An iridectomy was made and the lens extracted. The foreign body was not found, but the patient was discharged. During *six* years the eye remained unchanged, with the exception of occasional slight, short attacks of inflammation. Some months ago, however, a severe inflammation (iritidocyclitis) set in, which induced Knapp to remove the eyeball. Upon examining it he found a piece of metal in its interior in the lowest part, resting upon the retina and ciliary ligament. A scar showed distinctly that this chip had struck the retina in its upper segment; had been encapsulated by adhesions, and lodged there for six years. The last severe inflammation had evidently been caused by the falling of this chip through the vitreous humor to the bottom of the eye.

DR. RUTHERFORD has made the remarkable discovery that, while calomel has no excitant effect on the dog's liver, corrosive sublimate is a powerful hepatic stimulant. He found that one-twentieth of a grain of the latter, together with a grain of calomel, powerfully stimulated the dog's liver, but test experiments indicated that the effect was entirely due to the more powerful salt. Larger doses of calomel introduced alone into the stomach produced no effect on the

liver, even after a considerable time; the same result has been obtained by other experimenters, hence he believes that no sufficient quantity of corrosive sublimate is produced by the action of the gastric acids on the calomel to produce hepatic stimulation. He has, however, tested every substance that has any reputation as a cholagogue in man, and found, with the exception of calomel, a remarkable coincidence between the results of physiological experiment and clinical experience, which he claims "entitles us to maintain that our experiments with calomel are not to be set aside by the clinical observer merely because he is of the opinion that calomel in some way or other increases the discharge of bile in man." This seems hardly conclusive from the premises, but in the main his reasoning is probably correct. Careful physiological experimentation by competent investigators, with results in accordance with clinical experience in nearly all respects, should command general respect for its conclusions, and a single marked exception ought to be accepted as such from the general trustworthiness of the results. It is probable, as Dr. Rutherford holds, that calomel increases the discharge of bile by stimulation of the intestinal glands, thus producing drainage of the portal system, or by some other indirect way, instead of by stimulating the hepatic secretion directly.

AN article from the pen of Dr. C. L. Jensen, of Vermilion, Dakota, is now being industriously circulated. It refers to a case of hemorrhage into the bladder, in which the blood coagulated in the viscus and interfered with urination. The doctor injected into the bladder a mixture of fifteen grains of pepsin, six drops of muriatic acid and two ounces of water, and expedited the disintegration of the clot by gentle rotary movements of the catheter. In a few hours the contents of the bladder were evacuated. The case is suggestive, and especially so as Dr. Jensen is engaged in the manufacture of pepsin. In an elaborate advertisement of his specialty he declares that pepsin consists of germs which are capable of endless multiplication, and he speaks of his "germinator" with as much flippancy and assurance as if it were a veritable vegetable garden. The methods of advertisers are various.

FILEHNE, of Erlangen, has succeeded in obtaining all the cardinal symptoms of exophthalmic goitre in young rabbits by section of the restiform bodies in the medulla. Not all, however, could be obtained at one time. The cardiac symptoms were the most frequent, and the thyroid enlargement was the rarest. He considers the disorder due to a medullary lesion involving paralysis of the sympathetic and disturbance of the special cardiac innervation.

DEXTRO-QUININE.—In the experience of Dr. L. A. Rutherford, of Macon, Ga., dextro-quinine appears not to have been overestimated. In the Medical and Surgical Reporter he concludes the report of a case of double pneumonia and abortion somewhat as follows: The shock of this abortion, superadded to the pneumonia, was fearful; the patient became semicomatose; pulse 150, small and thready, breathing diaphragmatic. Several violent convulsions then came on. The face was pale, skin hot, and extremities cold. Something had to be done forthwith, and as I put about as much faith in dextro-quinine as most men do in a good brake on an express train, I poured out what I thought to be a good twenty-grain dose of that drug, which was dissolved in a solution of tartaric acid, and poured it down her throat. This was repeated in an hour. It was marvelous to witness the effects. In two hours the pulse was reduced forty beats, and the skin was much cooler. The convulsions were much lessened. In three hours more I gave her ten grains again; at night she had recovered her senses. On the next day I found, to my surprise, that there was very much less solidness of lung than at any other time since I first saw her. The dextro-quinine was now combined with Squibb's tincture of iron, five grains to thirty drops every three hours. From this time on the convalescence went on uninterruptedly. I make no comments on this case, but would ask the attention of the profession to the line of treatment followed, which, I believe, will be found a successful one in cases both of double pneumonia, pleuro-pneumonia, intermittent fever, and allied diseases.

THE danger in the use of large doses of chlorate of potassium has been decidedly underrated. A very pertinent article on this topic is to be found in Virchow's Archiv. (Vol. 77, p. 455), by Dr. F. Marchand. He cites four cases in which the salt produced poisoning, three being fatal. The least dose was about 12 grammes in thirty-six hours. He refers also to Jacobi's article on diphtheria in Gerhardt's (German) Encyclopedia of Diseases of Children. Dr. Jacobi limits the dose of the salt to 1.5 grammes for a child of one year, considering more than 6.8 grammes within twenty-four hours an unsafe quantity even for an adult. He quotes several cases of death from chlorate of potassium occurring under his observation. The symptoms were manifold and obscure, resembling to some extent the symptoms of meningitis. The urine was always albuminous and of a dark brown color, but did not contain blood-corpuscles. At the post-mortem all organs were found unaltered except the kidneys. They were congested and contained microscopic accumulations of round cells in

the periphery of the medullary part. Many of the tubules were also plugged with casts. The most marked change was found in the blood. It had assumed a dark brown color throughout the entire system. Experiments upon animals confirmed the dangerous nature of the salt in large doses. The author learned that the chlorate, when in the blood, yields some of its oxygen. This combines with the hæmoglobin of the red-corpuscles. The result, however, is not the normal oxyhæmoglobin but the methæmoglobin. The latter represents a sub-oxide, so to speak, which retains the oxygen more energetically. This methæmoglobin is not only valueless but even poisonous to the organism. The kidney-change the author interprets as a secondary process, the beginning of pyelonephritis, due to the presence of decomposing urine.

FROM *Centralblatt für Chirurgie*, No. 12, 1879, we take the first exact statistical record of a large number of cases of external carcinomata, which has just been made by Dr. Winiwarter. The material is gathered from Billroth's Clinics for the years 1868 to 1875, and consists of five hundred and forty-eight cases. Operations were not advisable in one hundred cases (18.24 per cent). Four hundred and forty-eight cases were operated upon; of these ninety (20 per cent) died as a consequence of the operation. Two died from accidental complications. Permanent cure resulted in one hundred and four cases (29.21 per cent). Recurrent tumors where an operation was inadvisable, and fatal metastasis, occurred in one hundred and forty-two cases. The future history of the patients who left the hospital as cured is unknown in one hundred and two cases. Eight cases were discharged cured of carcinoma, but died later of non-malignant disease.

MEDICAL LEGISLATION IN WISCONSIN.—A bill to prevent unqualified persons from practicing medicine or surgery in the State of Wisconsin is before the legislature. It provides for the formation of a State Board of Health, composed of four members of the State Medical Society of Wisconsin, two members of the Homœopathic Medical Society of the State of Wisconsin and one member of the Eclectic Medical Society of the State of Wisconsin. The provisions of the bill are substantially the same as those of the corresponding law in Illinois.

DR. EDWARD W. JENKS has recently discharged a patient from Mercy Hospital, Chicago, cured of malignant disease of the uterus by total extirpation of that organ.

DR. GEO. ROSS, of Richmond, Va., reports a case of tetanus following vaccination by a German midwife.

ULCERATION OF THE RECTUM.—The frequent small and bloody mucous discharges which are symptomatic of this lesion often pass under the vague name of chronic diarrhoea or chronic dysentery, and for want of physical examination the local cause, which may be readily exposed by Sims' speculum, is overlooked. The common treatment by medication does little or no good unless combined with local treatment. Many prominent surgeons, among them Dr. T. G. Thomas, of New York, have cured a large number of the worst cases by the local application of nitric acid,—a means of treatment which is rendered safe by the use of Sims' speculum. After a single application the ulcers generally heal in a week or ten days, and the symptoms disappear. The acid should be applied sparingly to every part of the ulcerated surface, by means of a stick armed with a little cotton. Immediately after the application the parts should be freely covered with vaseline or olive oil or cold cream. Anesthesia should be employed. Dr. Dudley, of Chicago, has successfully treated ulceration of the rectum by simple hot-water injections. The water should be as hot as the patient can tolerate without distress, and should be injected immediately before and after each movement of the bowels; it need not be retained for more than a minute. If after the injection has been used for three or four weeks the improvement be not unmistakable, the acid should be used. The safety of the careful application of nitric acid to ulcers of the rectum has been demonstrated by the absence of any accident in a large number of cases.

PARALYSIS OF ALL OCULAR MUSCLES, as the effect of coal-gas poisoning, is reported by Dr. Knapp in the last number of his Archives. No similar case has as yet been described, although some few authors have observed paralysis of other muscles arising from this cause. In the present instance the etiology was unmistakable. A gentleman having slept over night in a room with a defective heater was found unconscious in the morning. In the course of some ten days the most threatening symptoms,—headache, stupor, debility, etc.,—disappeared, but there remained a paralysis of all the external ocular muscles, as well as the ciliary muscle. This impairment diminished in the course of some months, until finally there existed only a weakness of the ciliary muscle and the internal rectus. This insufficiency increased, and finally required tenotomy of one external rectus muscle. No further benefit was obtained by local galvanization and the use of Turkish baths, but a satisfactory improvement, though no perfect cure, resulted from a trip to the country. Of the morbid changes causing the paralysis, no clue can be obtained from the entire account.

DR. W. A. HAMMOND has, to a greater extent than any other physician in this country, the benefit of the mistakes of not too partial friends. The most recent one is the statement in the foreign correspondence of a certain medical journal, that he had in his work appropriated certain illustrations from Prof. Charcot without giving due credit, and that the latter had made complaint of this fact to the correspondent. The outcome of the charge is a complete vindication of Dr. Hammond, in a very complimentary way, by the distinguished French neurologist. Dr. Hammond's work has been translated and largely circulated in France; it is remarkable, therefore, that the charge of plagiarism should first be published in this country, and that Dr. Hammond should be supposed to be so inconsiderate as to give grounds for it under the circumstances. It would almost appear that the wish was father to the thought: there certainly was too little caution against evil-speaking.

THREE of the New York Asylum reformers, Drs. Wilbur and Spitzka and Hammond, are quoted in the Edinburgh Medical Journal as declaring that "mechanical restraint, including the camisole and the 'Utica crib,' are frequently employed in our insane asylums merely to save trouble to the attendants, and that forcible feeding is sometimes used without even the presence of the physician, and that some of the superintendents do not regularly visit their patients, and that in this country contributions of any merit on the pathology of nervous disease and insanity are made by men not connected with asylums." The Edinburgh journal then adds the following: "Any one who will take the trouble to compare the Chicago Journal of Nervous and Mental Diseases (one of the best of its kind) with the American Journal of Insanity, printed at public expense (and no wonder, for what bookseller would look at such an undertaking?) will be ready to agree to the last of these charges."

OXALATE OF CERIUM is a valuable remedy in the treatment of some of the most common manifestations of phthisis. It is specially applicable when there is decided gastric disturbance and violent coughing with free expectoration. It not only quiets the stomach and lessens expectoration, but it also exerts a striking influence in diminishing the severity of the cough. It does not operate well when expectoration is scanty, and because of its tendency to dry the air passages its use cannot be continued with advantage longer than a few days at a time.

TWENTY-FIVE capital operations were performed at Mercy Hospital, Chicago, during the year ending December 1, of which only three were fatal.

SIMS' SPECULUM for examination of the rectum is incomparably superior to all others. It is to be used in the same manner as for vaginal examinations, with the patient in Sims' lateral, or, accurately speaking, latero-prone position, and when used in this way it gives as good an exposition of the rectum as of the vagina. Its use is much facilitated by forcible dilatation of the anus by the method of Van Buren, but unless the dilatation is indicated as a part of the patient's treatment this may usually be omitted. Applications to the rectum may be made through this speculum with as much ease as to the vagina or uterus. The operation for internal hemorrhoids also is much facilitated. When the operation to be performed is very far above the anus, the walls of the rectum may, by contact with one another, cause annoyance. This difficulty may be overcome by a device of Dr. A. J. Stone, of St. Paul, Minn. Dr. Stone attaches to a soft-rubber tube, armed with a stylet, a rubber bulb with very thin and flaccid walls, in such a manner that by blowing through the tube the bulb may be inflated. The speculum is first to be introduced. The collapsed bulb is then to be pushed by the stylet above place of operation, inflated by blowing through the tube, and retained in place by slipping the tube, the stylet remaining in place back of the speculum, where it will be entirely out of the operator's way. All that part of the rectum below the inflated bulb will then be distended and accessible.

J. KIJANIZYN, *Wojeuno Medizinski Journal*, 1879, vi, (abstr. in *St. Petersburg Med. Wochenschr.*), recommends the use of potassium bromide as a local anesthetic to the uro-genital organs. He has used it by injection in cases of painful, acute and chronic inflammations of the urethra, in stricture, too frequent pollutions, and in all with favorable result. He uses an aqueous solution of the strength of $\frac{3ij}{\text{to } 3vi}$ distilled water, and injects $\frac{3i}{\text{three times}}$ a day, allowing the fluid to remain a few minutes in contact with the urethra. He concludes that the local use of bromide of potassium is of value in all cases of hypersensitiveness of the urethra and neck of the bladder; also in the treatment of stricture with bougies, in urethritis and its complications, such as chordee, dysuria, neurosis, etc., and in pollutions dependent on peripheral causes. He thinks also that it will have a good effect on the vesical walls, and be useful in cystitis, gravel, etc.

THE NEW EDITION of The Medical and Surgical Directory of Iowa, for 1880 and 1881, edited and published by Dr. Charles H. Lothrop, of Lyons, Iowa, will be ready in June, 1880. The Directory will be an

octavo volume of about two hundred pages, and will contain the names, postoffice address and professional status of the physicians; the various medical societies, with names and residence of officers and members; a list of members of the American Medical Association from Iowa; a roster of U. S. Examining surgeons for pensions for the state; medical colleges, state charitable institutions, hospitals, medical laws, fee bills of medical societies in different parts of the state, a mortuary record, and a list of the physicians of the state, alphabetically arranged, with reference page where name may be found in register proper. Dr. Lothrop is entitled to the thanks of the profession for continuing the publication of this work.

IN a recent paper read before the French Academy of Sciences, M. Arloing maintains Liebreich's view, that the anesthesia from chloral is due solely to liberated chloroform, and that the alkaline formiates only mechanically assist the process by quickening the circulation, thus enabling the real agent more readily to reach the nerve centers.

REPLIES TO QUESTIONS RECEIVED.

DRUGGIST, CHICAGO. — Bromhydric and bromohydric acids are only other names for hydrobromic acid. Two systems of nomenclature prevail in connection with binary acids like the above; one, employed by the majority of English and American writers, and used by the Pharmacopœia, places the prefix "*hydro*" before the name of the other element composing the acid; the other system, following the French nomenclature, inverts this order, placing the "*hydro*" (changed to "*hydric*") last. So hydrochloric and chlorhydric, hydriodic and iodohydric, hydrocyanic and cyanhydric, hydrobromic and bromhydric acids are synonymous. Undoubtedly the first system, since it receives the support of the U. S. Pharmacopœia, is much the better one for medical men to use, and it would be well for the other names to be entirely abandoned, as they are liable to cause confusion, and, as is seen in your own case, produce annoying perplexities, and might even occasion dangerous mistakes, in compounding prescriptions.

J. H. R., STERLING, ILL.—Chlorate of potassium is soluble in sixteen parts of cold water, although much more readily soluble upon the application of heat. A drachm of the salt to two ounces of water, therefore, produces a cold saturated solution. Its somewhat sparing solubility is occasionally quite inconvenient, and in these cases the corresponding sodium salt (chlorate of sodium) has been suggested. It dissolves in three parts of cold water, so that when solutions of considerable strength are needed, as is sometimes desired in making topical applications, its easy solubility would recommend it over the potassium compound. Those who have tried it in practice generally speak well of it.

REVIEWS AND NOTICES.

THE THEORY AND PRACTICE OF MEDICINE. By Frederick T. Roberts, M.D., B.Sc., F.R.C.P., Professor of Materia Medica and Therapeutics at University College; Physician to University College Hospital; Assistant Physician to Brompton Hospital, etc. With illustrations. Third American from the fourth London edition. Philadelphia: Lindsay & Blakiston, 1880. Wester News Co., Chicago.

This is a well-written and a well-made book of a thousand and forty pages. The first two chapters are devoted to those general considerations which collectively constitute the "theory" of medicine. The information contained in them is unsatisfactorily meagre, and its common-place nature is entirely unrelieved by any evidences of originality. No one having the wish and the will to be thorough would think of relying on such a source for his knowledge of the subjects embraced in the theory of medicine, when special and exhaustive treatises on each one of them were to be procured. Moreover, these subjects, general pathology and general therapeutics, not only do not constitute a necessary part of a work on practical medicine, but they are usually studied with more or less thoroughness before such a work is taken up. We do not understand, therefore, why, when the theory of medicine is divided into several departments of teaching, each one of which is of such magnitude and importance that special treatises are devoted to it, it should be considered necessary to include the theory in a work on practice, and to squeeze the life out of the practice in order to make room for it. When a physician or a student consults such a work it is not to study general principles, but it is to study special details in relation to some particular case in hand. We cannot see the propriety, then, of associating these subjects in a moderate-sized volume that is intended to represent the author's views of practical medicine, at the expense of crowding out practical matter and of making the work more or less incomplete in every part. In the case before us we are bound to maintain, and with the greatest respect for the distinguished author, that the scientific value of the book would be greatly enhanced if the introductory chapters, which are of doubtful utility at best, were entirely omitted, and the space thereby gained were devoted to a necessary degree of minuteness in the details of special pathology and special therapeutics. That this opinion is well founded, will appear from the fact that the subject of typhoid fever is disposed of in thirteen pages, yellow fever in four pages, scarlatina in nine, diphtheria in nine, etc. etc. The author informs us in the preface that "the chapters relating to the absorbent system and the nervous system have received special attention, and important additional matter has been introduced in connection with these subjects." The extent of these additions may be readily inferred when we state that all the diseases of the absorbent system are considered in thirteen pages, that epilepsy

is disposed of in six pages, locomotor ataxia in two and a half pages, infantile paralysis in two pages, tetanus in a page and a half, sunstroke in one page, etc. etc. Conciseness is commendable in itself, but when carried to the extent of impairing the usefulness of a book, it is the source of vexation and disappointment to the reader. Meagreness of detail, want of explicitness, constitutes an element of serious weakness in this book and greatly impairs its value. The subject-matter is excellent as far as it goes, and it is embodied in clear and unmistakable language; but it holds nothing that has not been the common property of the profession for years. In many instances it is of rare excellence, especially in relation to symptomatology; but the remarks on treatment are so brief and indefinite, that it is impossible to see how they can convey necessary information to the reader. Particular indications for the use of certain medicines or combinations are pointed out but rarely, and in many instances no suggestion is even made as to the doses that would be appropriate. The casual remark that "mineral acids and small doses of quinine are the general medicinal remedies most in repute in the treatment of typhoid, but they have not appeared to me nearly so efficacious in this disease as in typhus, and usually are not required," though embodying a fact, and exhibiting commendable independence of judgment, would hardly be satisfying to an inexperienced practitioner; while the bold statement that "complications should be attended to if they should supervene," would hardly be regarded as of much service in helping him out of a dilemma. A multiplicity of deficiencies of this sort make the book less satisfying and less instructive than it would otherwise be; and this remark is pre-eminently applicable to the chapters devoted to diseases of the nervous system. Practitioners are less in need of a knowledge of disease than they are of a knowledge of diseases.

SYPHILIS OF THE BRAIN AND SPINAL CORD. Showing the part which this agent plays in the production of Paralysis, Epilepsy, Insanity, Headache, Neuralgia, Hysteria, Hypochondriasis, and other mental and nervous derangements. By Thomas Stretch Dowse, M.D., Fellow of the Royal College of Physicians in Edinburgh, Honorary Secretary for Foreign Correspondence to the Medical Society of London, etc. etc. New York, 1879; 144 pages.

There has been, comparatively, so little recent medical literature in our language on nervous syphilis, that the work before us, brief and in some respects unsatisfactory as it is, meets to some extent a felt want of the English speaking physician. It is not easy to overrate the importance of its subject, for many of the nervous complications of syphilis are among the most formidable ailments that are met with, and their frequency, or at least their recognition, is of late greatly on the increase. Considering these facts we should have looked for a larger work to embody all that is promised on the title-page, and this first impression is, to a certain extent, continued by its perusal. Compared with the larger works in

other languages, such as those of Heubner, Fournier and Lancereaux, it is exceedingly brief in its treatment of some of the subjects, and some phases of nervous syphilis are not at all, or scarcely, mentioned. Among these omissions of special mention one of the most important is that of the early nervous syphilitic manifestations, which have been largely ignored by former writers, so that it is a common impression with many medical men that the disease must be at least two or three years old before the more serious nervous symptoms make their appearance. Two of the cases here reported, however, are apparently of this class, though the implication of the nervous centers was perhaps not of the most serious kind. Notwithstanding its brevity, however, the work is a sensible and practical treatise, that will be of use to almost any one that may become its possessor. The field it occupies is one that has been comparatively neglected in English medical literature, and there was ample reason for its appearance.

LECTURE NOTES ON CHEMICAL PHYSIOLOGY AND PATHOLOGY. By Victor C. Vaughan, M.D., Ph.D. Second Edition. Ann Arbor, 1879.

The work before us possesses no inconsiderable advantage over the usual run of medical literature: it has no rival. We know of but one treatise of similar scope—the chemical part of Burdon-Sanderson's Handbook of the Physiolog. Laboratory. This, however, is not as exhaustive as Vaughan's work. Besides these we have no laboratory works on the subject of physiological chemistry in the English language. In fact it is difficult for the student to find even the proper systematic work on this important topic.

These remarks are not intended to imply that Vaughan's merit rests solely on this basis. His book comes to us in a modest, unpretentious shape, and it fulfills all its claims. It describes in a plain manner the methods in use in physiological chemistry. The author claims no originality. He does not even act as judge when conflicting statements are to be presented; he either presents them or avoids them. But the work is not a mere compilation gotten up at the desk. It was evidently produced in and intended for the laboratory. Its practical nature is also shown by the microscopic plates issued in a separate form. They are not artistic, but they show just what they are intended to show.

The appearance of the book is creditable. For intrinsic reasons it is not a work to be read as pastime, although the language is good. But it is at present almost the only available source of information to the practitioner whose chemical ambition is not satisfied by boiling albuminous urine. H. G.

BOOKS AND PAMPHLETS RECEIVED.

- A. REEVE JACKSON, M.D. A Case of Enormous Dilatation of the Stomach, Simulating Ovarian Cystoma and Ascites. From Detroit Lancet, January, 1880.
R. C. KEDZIE, M.D. A Lecture of Healthy Homes for Farmers. Reprinted by the Michigan State Board of Health. From

the Annual Report of the Michigan State Board of Agriculture, 1877.

JOSEPH EASTMAN, M.D. Excision of the Knee Joint, with cases. From the Transactions of the Indiana State Medical Society, 1879.

WM. A. BYRD, M.D. Tracheotomy with the Galvano-cautery. From the St. Louis Clinical Record, 1879.

Strangulated Hernia with Fecal Fistula Treated by a New and Simple Enterotome and by Anaplastic Operation. From the Medical and Surgical Reporter, October 25, 1879.

EDWARD W. JENKS, M.D. The Causes of Sudden Death of Puerperal Women. An Address on Obstetrics and Diseases of Women and Children delivered before the American Medical Association, June 5, 1878. From the Transactions of the Society.

H. P. C. WILSON, M.D., Baltimore, Md. Paquelin's Thermo-cautery with Wilson's Antithermic Shield in Epithelioma of the Cervix uteri. Read before the Medical Society of Virginia, October 23, 1879.

EDITORIAL ITEMS.

A BILL is pending before the New York legislature for the creation of a state board of health.

EMMET'S Principles and Practice of Gynecology has had an immense sale. The first edition has already been exhausted.

THE Parisian bulletin of mortality still bases its calculations upon the census of 1876, giving Paris a population of 1,988,806 inhabitants.

OF 175,000 inhabitants in Louisville, Dr. Montgomery, the health officer, reports 2,410 deaths. Of these 399 were from consumption, 201 from pneumonia, 84 from meningitis, 75 from typhoid fever, 52 from diphtheria, 0 from small-pox.

CARGELL reports, in the Lancet, three cases of traumatic tetanus successfully treated with chloral hydrate. The doses for a man aged twenty-eight were from ten to thirty grains, repeated often enough to keep the patient for ten days constantly under its influence. A child aged three was given six-grain doses and recovered in three weeks.

DR. TURK is quoted in the Detroit Lancet as follows: "It is faulty midwifery which gives to gynecology nearly all its importance. Two or three rash and unskillful physicians in a city, who possess a large obstetric practice, have been known to keep a gynecologist busy in treating diseases and repairing damages which greater obstetric skill might have prevented altogether or greatly lessened in severity."

DR. J. L. BAUER, in a recent paper on "Nervous Affections of Malarial Origin," in the St. Louis Clinical Record, gives the remarkable diagnosis of "double supra-orbital neuritis extending down the left side of neck, shoulders and scapula." The context is provokingly deficient in the needed explanation of the lesion. Is the disease supposed to involve the whole supra-orbital region, or are not some important nervous branches still uncomplicated?

ORIGINAL CONTRIBUTIONS.

*THE TREATMENT OF NEURASTHENIA
OR CHRONIC NERVOUS EXHAUSTION.*

A LECTURE DELIVERED BY J. S. JEWELL, M.D.,
Professor of Nervous and Mental Diseases in Chicago Medical
College.

The proper treatment of neurasthenia is a matter of great practical importance. As might be expected, it falls under two divisions—hygienic and medical. Before proceeding to declare what the proper treatment is, I wish to state briefly what are its pathological conditions. It does not include serious local disease in any part of the nervous system. It is essentially a disease of nerve nutrition. It consists in a more or less serious preponderance of waste over repair. The nervous system of a neurasthenic person is lean. The process of waste has so far outrun that of repair as to require weeks, months or even years of careful management, in some cases, to restore a healthy balance between them. With this loss of nerve substance there goes inevitably a loss of nerve power, and this is neurasthenia. There is not only a loss of power, but a great gain in mobility, or susceptibility of the nervous system. It is more easily impressed in every way than it should be. Reflex excitability is far above healthy limits, especially in its relations to the heart and vascular system. Under the head of a loss of nerve power, there is one important factor in most cases of neurasthenia. It is loss of power of inhibition or control, and this may occur to any or all parts of the nervous system, including the brain, which is the seat of the will. But without dwelling longer upon the pathological conditions underlying neurasthenia, I will turn to a brief description of its proper treatment.

Then, first, its hygienic management. If the pathological conditions are correctly described, their consideration points out to us the proper course to follow. In the first place, it shows us plainly the necessity for arresting waste by stopping the activities of the patient. This is in accordance with the dictates of common sense. If there has been too great waste, and, as a consequence, exhaustion, we are certainly required to stop it. We should carefully examine into the patient's habits, condition, and find out in what way the unusual wear and tear has occurred, and immediately, as far as possible, put the patient at rest. Right here an important practical point comes into view, too frequently lost sight of. It is not so much what is *done* as what is *endured* that wears away the nervous system. It is not sufficient, therefore, to stop the patient from physical exercise or from voluntary mental effort, but as far as possible to find out the existence of disturbing emotions, and even the secret cares, responsibilities and sorrows, which frequently weigh more heavily upon the mind, and hence upon the nervous system, than physical and mental toil.

At this point I must particularize a little. We

should inquire strictly, e.g., as to the extent and character of the patient's reading, the social habits, domestic and social surroundings, sexual habits, religious states, business cares, and of any or all the matters which may burden the mind and disturb or distress the patient. It is quite possible to cease physical or mental labor, and to rest; but it is far more difficult to lay aside at will or pleasure the burden of a canker-ing care or of a morbidly anxious mind.

There is no doubt in my own mind but that our greatest mistakes are made in dealing with neurasthenia in omitting to inquire into such difficulties, and, if possible, removing them. Then do not forget in your inquiries into the causes of wear and tear of the nervous system that your duty is hardly half done when you have found out simply what the patient has been doing, until you find out what has been endured. But no matter in what way the waste of the substance and power of the nervous system has been produced, it is plainly your first duty to direct, specifically, that there shall be rest of the proper kind and degree, if possible. And here is a chance for the exercise of all the wisdom that the best physician can have. It is a nice question to distinguish a genuine neurasthenia from a voluntary or hysterical simulation of it. Even where all doubts have been removed as to the reality of the nervous exhaustion, it requires unusual care in fixing upon the just limit of exercise; but, upon the whole, it is best to give the patient the benefit of the doubt, and to submit to the guidance of the following two rules, i.e., *To substitute, in great measure, passive for active exercise, and when active exercise is taken to keep it within the limits of serious fatigue or exhaustion.* It is quite possible, in yielding to the desire of friends or of the patient, to undo, in one hour, by injudicious active exercise, what may have required weeks to accomplish.

As respects passive exercise, there is much to be said. It comprises all of those movements which may be produced by a skilled attendant or nurse, in the way of friction, kneading, pinching, shaking, spitting, etc. etc., by which the various parts of the body, both trunk and limbs, are passively moved, so as to improve the circulation and impart those physical shocks to the tissues which, in cases of exhaustion, take the place, in a measure, of active or voluntary exercise. Without this, patients who are bed-ridden are greatly retarded in recovery. The skin becomes pale and flaccid, the circulation feeble, the extremities cold and bathed in perspiration, the individual becomes nervous and filled with restless impulses to activity, which cannot be gratified voluntarily. Such patients become morbidly excitable, explosive, unable to sleep soundly of nights, liable to hysterical and other kinds of nervous attacks; all of which may be in a measure avoided by passive exercise. By this means fatigue is produced without exhaustion. This matter of passive exercise is seen at its best, perhaps, in the intelligent application of the so-called Swedish movement cure. Under its use

the circulation of the skin and deeper tissues is improved, and with this the process of nutrition is quickened, the extremities become warmer, the patient rests more quietly, especially sleeps better, the appetite improves, the bowels become more regular, the secretions more healthy, at least in a majority of cases. But it requires great care and tact on the part of the physician, as well as that of the attendant, to carry out passive exercise in a profitable manner. It is certainly not enough, on the part of a physician, to give directions of a general character. He should prescribe, in a most specific and plain manner, just in what forms and to what extent it should be employed in each case, and be prepared to give practical lessons, if need be, to the attendant. I am persuaded that many individuals are greatly delayed in their recovery, or some may even perish, for want of judicious treatment of this kind. It should include due attention to baths, and inunctions when they appear necessary.

The next thing to which I will direct your attention is the nourishment of neurasthenic patients. This is also an exceedingly important matter. It is not enough for the physician to merely recommend that the patient shall be well fed; beyond this he must specifically inquire into the dietetic habits of the patient, and as carefully adjust the patient's dietary as he would a purely medical course. Much will depend on the age and condition of the patient, especially upon the presence or absence of dyspepsia, but all these things must be considered, and a course must be laid down, both minute and comprehensive, as to what kind of food shall be taken, how much and when, and also what kind shall not be taken. If this part of the management of such cases is loosely turned into the hands of a nurse, or the patient's immediate friends, as a rule failure in a successful management may be predicted. With these prefatory remarks I will give you a brief account of the general course that should be pursued.

The subject of feeding such patients, in connection with rest and passive exercise, has been treated of and practiced in the last few years by Dr. S. Weir Mitchell, of Philadelphia, in a very interesting manner, especially in his little work with the somewhat startling title, "*Fat and Blood, and how to make them.*" I refer you to his writings for much practical information on this subject.

But I shall not content myself until I have given you the results of my own practical experience. The first rule to be observed is, choose those articles of diet which contain the greatest amount of nutritive material in the smallest space. Happily it is not difficult to determine what that kind of food is. Such a diet is, of course, a mixed one, *i.e.* *animal* and *vegetable*. But first as regards *animal* food: The two or three articles which I would single out as standing at the head of the list are good tender lean beef, milk and fats. No other meat can compare with good beef, and by good beef I mean the best which can be ob-

tained from the tenderloin of young, well-fed, healthy animals. It is singular how few persons know what good beef is, especially such as is most suitable for the exhausted invalid. People think it not hard to send to Spain, Germany or Hungary for their wines, and elsewhere for other delicacies, who have never learned during a long life what really good beef is, and how to select it at the butcher's forty rods away. It is useless, therefore, to recommend for neurasthenic patients good beef unless the needful pains be taken to secure it. But having obtained it, much depends upon its preparation. A good way to prepare it is to mince or chop it very fine, and to cook it over a slow fire or in a water bath until the juice of the meat begins to exude freely, and until the process of cooking has been carried to such a point, either rare or well done, as agrees with the patient's taste and habits. It should then be carefully seasoned and eaten, or it may be either broiled or roasted. But in whatever way it is cooked, extra care should be taken to have it palatable. There is no better animal food than this. It stands at the head of the list. All other meats are below it in rank. Other meats, like mutton and game, may be resorted to for change, but only for change.

As to fish: there is a sort of fiction widely prevalent that it is especially adapted for the nourishment and recuperation of persons suffering from nervous exhaustion. It is said that the flesh of fish contains a larger proportion of phosphorus than other meats, but however this may be, no greater mistake in its way could be made than the substitution of fish for good beef as a means of nourishment for the higher tissues. No fish-eating people have ever risen to any considerable prominence during the history of the world. But beef has been commended by the uniform experience and instincts of all civilized people who have attained the greatest heights of knowledge and power from the beginning to the present time. Then, let it be considered as settled that, as a rule, beef is preferable to all other kinds of flesh food in the case of those who are suffering from nervous exhaustion.

Next as regards *milk*: there is no better form of food perhaps than this. It is that article of diet which serves all persons, almost exclusively, during the first year of existence, and upon which they thrive in a wonderful manner. The growth of the infant on this kind of food alone is simply phenomenal. These remarks apply not only to man, but to all the higher animals, and with the same results. This being the case, it is a little astonishing that it should fall so completely out of the diet list of so many persons, whether sick or well.

But in cases of neurasthenia, perhaps no more useful form of food can be found or imagined than milk. In some cases it is best to use it without skimming; in others, after it has been skimmed; but in any case it should be sweet and fresh, with an exception shortly to be noticed. It may be taken as the sole

article of diet at regular periods, or in connection with other forms of food. In some instances, especially in dyspeptic neurasthenia, which of all forms of the disorder is the most common, according to my experience, it is necessary to give it in connection with some agent, such as lime-water, in certain proportions to the milk, or, what is quite as good frequently, carbonate of magnesia. This is especially necessary where there is an excessive secretion of highly acid gastric juice, producing what is called "acid upon the stomach." This acid is usually supposed, even among many medical men, to result from the fermentation of the food, but this is not true in most of such cases, because impossible. If the contents of the stomach become unduly acid within an hour after taking food, the phenomenon is not due to fermentation. The acidity is caused, as a rule, by an abnormally acid gastric juice secreted in large quantities. We may have the morbid secretion of the gastric juice, both in quality and quantity, as we may have morbid secretion from the skin, or from the kidneys or other secreting organs. In such cases it is necessary, as already stated, to combine with the milk a greater or less quantity of good fresh lime-water or carbonate of magnesia; the latter is to be greatly preferred if the patient is constipated. By such means milk can be digested with comfort, as it could not be without them. But this is not all: the mucous membrane of the stomach is often so sensitive toward solid food as to enable the curd of the milk to give rise to much gastric pain and other unpleasant phenomena. In such cases it is highly beneficial to combine the milk with a certain proportion of some glutinous substance, such as may be obtained from the long cooking of cracked barley, or wheat and milk in equal proportions. This not only forms an exceedingly nourishing article of diet, but, under these circumstances, milk digests without forming a massive curd. With these precautions almost any patient can take and digest in comparative comfort considerable quantities of milk.

Finally, as regards fats: They may be administered in cases of neurasthenia both internally and externally. Externally they may be used in the form of *inunctions*. For this purpose there is nothing better than salad or olive oil, such as is used upon our tables. Internally it may be used in the form of fat meats, and, if they can be used by the patient, butter and cod liver oil.

Next as regards vegetable foods: Chief among this class stands the very best stale, but sweet, light wheat bread, and next after this perhaps the best and simplest crackers and fresh well-prepared oatmeal. Except for the sake of change, these articles of vegetable diet should never be deserted in such cases. Like good beef among meats, these stand at the head of the list of vegetable foods. Undoubtedly they contain the maximum of nourishing materials in a given bulk as compared with all other articles of their class. In cases of nervous exhaustion too much

care cannot be bestowed in preparing these articles of diet to render them palatable and attractive. Except for the purpose of a change, or to meet some idiosyncrasy, this is the diet list I would considerably lay before you, to be adhered to as often and as long as possible. I know there are many articles of diet, both animal and vegetable, which, in many cases, or at times in all cases, may or must be resorted to, but this should be the exception to the rule.

There are two other articles to which I would call your special attention, coming wrongly, it seems to me, in the diet list proper. I now refer to tea and coffee, when prepared, as they ordinarily are for use, with milk and sugar. They consist, as they are taken, essentially of nerve stimulants in solution, the stimulants in both cases being similar if not identical. The active principles in coffee and tea are among the purest nerve stimulants known. After an extended observation in regard to the action of these agents I am prepared to deny that they are tonics in any sense of the word. They simply stimulate the proper activities of the nervous system and hasten the expenditure, and therefore the exhaustion of its power. They do not stimulate the process of nerve nutrition, and therefore indirectly lead to an increase of nerve power, as phosphorus and strychnia probably do. Their action is indeed of that character expressly to be avoided in neurasthenia. The nervous system is not only morbidly excitable already, but in an exhausted condition. Coffee and tea, when taken in any considerable quantities, only serve to increase this excitability and exhaustion. Tea is slower in its action apparently than coffee, and of the two is therefore the least harmful. Right here I will deliver myself of an opinion in regard to the action of coffee and tea upon the nervous system. When taken in cases where the use of these agents degenerates into an abuse, as is so common in this country, my opinion is that more harm is being done in a small way to a greater number of persons than by all other agents, excepting tobacco, of the class to which they belong. I consider it necessary, therefore, as a rule, to forbid the use of coffee and tea as beverages in nervous exhaustion. Hereafter I shall endeavor to justify by the facts the opinion I have just expressed. As regards the use of alcoholics in neurasthenia, I think they may often be employed with temporary advantage, but the cases are comparatively few in which I consider them necessary.

Such are the hints in regard to the feeding of this class of patients that I am able to offer at present. The subject is one of so great importance that it deserves extended treatment. Before leaving the subject of feeding, I must say a few words upon another connected with it. In many of these patients, perhaps in most of them, the capacity of the stomach to digest food is greatly below par. To meet the necessities of such cases various helps to digestion have been proposed. Among these pepsin takes the

lead. Most of the preparations of pepsin met with in the shops are for various reasons practically worthless. If, therefore, you depend upon such artificial aids to digestion you cannot possibly be too careful in satisfying yourself that they are fresh and active. In my own experience I have found a combination somewhat as follows very useful: Let there be taken at one dose, for an adult, ten grains of the freshly prepared saccharated pepsin of the hog or calf, or of both compounded, which is better. To this let there be added five to ten grains of a similarly prepared fresh preparation of the pancreatic juice and one grain of *Merck's diastase*. This represents one dose of the preparation for aiding in the digestion of food. It contains, as you will observe, the agents for the transformation of starch, that is the diastase, and to some extent the pancreatine, and for the digestion of nitrogenous elements, that is the pepsin, with the acids of the gastric juice, and also for emulsifying the fats, that is the pancreatine. I have obtained the most excellent results in the use of large doses of this preparation. But even this will not prove satisfactory if the gastric juice is small in quantity and feebly acid, as so often happens. Such cases may be benefited by the additional use of hydrochloric and lactic acids at some period in the progress of digestion; or in other cases, where the gastric juice is abundant and too acid, we should use, as has been already stated, with the food liberal quantities of lime-water, or of carbonate of magnesia. These are about all the hints I will now give you respecting the feeding of neurasthenic patients. Let it be remembered they are only hints. Such patients, in addition to what has been said, must have cheerful quiet company when they have any, must have an abundance of fresh air, and must keep the bowels well regulated.

[CONTINUED.]

SELECT TOPICS ON MODERN SURGERY, ILLUSTRATED BY CASES FROM HOSPITAL AND PRIVATE PRACTICE.

Ruptures of the Subpubic Portion of the Urethra.*

BY DRs. E. W. LEE AND CHR. FENGER, CHICAGO.

I.—Traumatic Rupture.

The great danger to life following complete traumatic rupture of the urethra is fully appreciated by modern surgeons. The main interest, however, depends not so much on the resulting morbid conditions as on the fact of our ability to prevent grave consequences by proper treatment, provided the case is intrusted to our care early enough after the accident. We shall first relate a typical case of complete traumatic rupture, and afterward quote from recent surgical literature on this subject.

CASE I. John Hansen, aged 53, laborer, was

* By the subpubic part of the urethra is meant all the bulbous portion and that part of the membranous portion immediately in front of the triangular ligament.

brought into Cook County Hospital on the morning of the 9th of August, 1879, and placed under the care of Dr. Fenger, and the following history was elicited.

Patient states that yesterday afternoon he fell from a scaffold, and in his descent struck the perineum across a joist. He was taken to his home and a doctor (Dr. Jacobson, of the Cook County Hospital staff,) was sent for. On his arrival the doctor tried to introduce a catheter, but immediately finding an impassable obstruction in the bulbous portion of the urethra, which was bleeding freely, he advised his removal to the hospital. Since the accident he has been unable to pass any urine, but considerable blood has passed from the meatus urinarius. Patient complains of severe pain in the perineum and over the hypogastric region, i. e. he suffers from constant urinary or vesical tenesmus, desiring to pass his water but being unable to do so.

On examination, percussion note is found dull over hypogastric region, extending from the symphysis pubis below to the umbilicus above. The bladder greatly distended with urine forms a fluctuating tumor in the median line of the above-named region of the abdomen. The perineum is somewhat swollen, and tender to the touch, and of a dark bluish color from subcutaneous ecchymosis. The discoloration extends forward over the posterior half of the scrotum and down the inner side of both femora for a distance of two inches, but no swelling of the tissues exists.

The house-surgeon tried to pass a No. 7 or 8 soft-rubber English catheter, but was unable to do so. The urine was withdrawn with an aspirator, the needle of which was passed into the bladder above the symphysis pubis in the median line. About three pints of clear healthy urine was removed, followed by immediate relief to the patient. Pulse 60, temperature 99° Fahr. No pain while lying quietly in bed.

9th of August. This afternoon perineal section was performed. The patient was anæsthetized by ether and placed in the lithotomy position, with flexed and abducted femora, and the perineum drawn over the lower end of the bed. A curved silver catheter was passed into the urethra until it reached the obstruction, where it was retained in position. An incision two and a half inches in length was now made in the median line of the perineum, extending through the integuments and the bloody infiltrated subcutaneous tissue. No urine or pus escaped from the incision. The corpus spongiosum of the bulbous portion of the urethra was now divided and search made for the end of the catheter, which was found in a cavity filled with dark clotted blood. After the removal of the clots the cavity was found to be very irregular, half an inch in breadth and one inch long, and the walls consisted of ragged, torn and bleeding tissue, among which no recognizable traces of the wall of the urethra could be found. The anterior part of the

urethra through which the catheter passed showed, at its outlet into the cavity before mentioned, an irregular opening in which no part of the urethral wall could be traced into the wall of the cavity. As the rupture consequently was a complete one, involving the whole circumference of the urethral canal, search was now made to find the opening into the posterior portion of the urethra. After some time passed in vain these efforts were relinquished, and every portion of clotted blood was carefully removed and the wound left as above described, as we desired and expected the free escape of urine through the perineal orifice. The withdrawal of the catheter was followed by slight bleeding from the meatus urinarius. The perineal wound was covered with soft lint, previously steeped in a five per cent carbolyzed linseed-oil dressing, and this was kept in situ by a piece of oakum placed between and behind the upper part of the femora. At night a subcutaneous injection of morphia was given.

10th, morning. Pulse 72, temp. $101\frac{1}{4}^{\circ}$ Fahr. Slept some during the night; slight pain in the perineal wound; as yet no urine passed. P.M. Pulse 84, temp. $101\frac{2}{3}^{\circ}$ Fahr. He is still unable to pass his water; suffers again from urinary tenesmus; the bladder is distended to within two inches of the umbilicus; no swelling or tenderness in the perineum. The urine was again withdrawn per aspirator.

11th, morning. Pulse 84, temp. $100\frac{1}{2}^{\circ}$ Fahr. Aspirated the bladder again this morning. The patient was again anæsthetized by ether; placed in the same lithotomy position, the light of the sun falling directly upon the perineum. The perineal wound was now dilated backward till it extended to half an inch from the anus, and the underlying tissues cut through, longitudinally, backward from the above-mentioned cavity filled with clots, until the subpubic ligament (ligamentum arcuatum, the triangular ligament) could be felt distinctly. No traces of the urethra could be seen among the continually bleeding tissues. A blunt silver probe was introduced in the direction of the membranous portion of the urethra, in the median line, up toward the position where the canal passes through the subpubic ligament, one-quarter of an inch below the inferior limit of the symphysis pubis. After some search in this locality, and after very slight and gentle movements of the probe, the latter finally slid into the bladder and a little urine escaped through the wound. A finger being introduced into the rectum the probe was found to be in the bladder. On the probe a director was run into the bladder, and now the probe was withdrawn. Along the director a rubber catheter was passed into the bladder and a quantity of clear urine was removed. Now a curved silver catheter was introduced through the penis into the perineal wound, and from this point, along the director, into the bladder, where its presence was made certain through rectal exploration. The catheter was left in the bladder à permanence, its outer end fastened in

the usual way round the pelvis and femora. The perineal wound was dressed as before. P.M. Pulse 112, temp. 104° Fahr. Morphia and quinine were administered.

12th, A.M. Pulse 108, temp. $98\frac{2}{3}^{\circ}$. The urine passes through the catheter; no swelling in the perineum. P.M. Pulse 104, temp. $103\frac{2}{3}^{\circ}$.

13th, A.M. Pulse 92, temp. $100\frac{2}{3}^{\circ}$. P.M. Pulse 92, temp. $102\frac{2}{3}^{\circ}$.

14th, A.M. Pulse 76, temp. 101° . P.M. Pulse 80, temp. 103° .

15th, A.M. Pulse 72, temp. $100\frac{3}{4}^{\circ}$. P.M. Pulse 88, temp. 101° .

16th, A.M. Pulse 76, temp. $98\frac{3}{4}^{\circ}$. The urine is somewhat purulent and alkaline. P.M. Pulse 84, temp. 101° . The catheter is removed.

17th, A.M. Pulse 72, temp. $99\frac{1}{2}^{\circ}$. The urine passes without difficulty through the perineal wound, which is now clean and granulating, and devoid of swelling. P.M. Pulse 84, temp. $99\frac{2}{3}^{\circ}$.

18th, A.M. Pulse 80, temp. $99\frac{1}{4}^{\circ}$. Introduced soft bougie (No. 13) through the penis and it issues at the perineal wound, from which it is easily passed into the bladder; copious purulent discharge from the anterior part of the urethra. Injection of sulphate of zinc (1 in 200) every four hours. P.M. Pulse 88, temp. 101° .

19th, A.M. Pulse 80, temp. $99\frac{1}{2}^{\circ}$. P.M. Pulse 88, temp. 100° . Soft bougie (No. 5) passes from the penis into the bladder.

20th, A.M. Pulse 72, temp. 98° . P.M. Pulse 72, temp. $98\frac{1}{2}^{\circ}$.

21st, A.M. Pulse 76, temp. $98\frac{1}{2}^{\circ}$. P.M. Pulse 96, temp. 100° .

22d, A.M. Pulse 80, temp. 98° . P.M. Pulse 80, temp. 99° .

23d, A.M. Pulse 100, temp. $98\frac{1}{2}^{\circ}$. Urine clear and natural, but passes wholly through the perineal wound. A bougie introduced through the penis will not pass into the bladder, but comes out through the perineal wound.

24th, A.M. Pulse 88, temp. 98° .

25th, A.M. Pulse 72, temp. 98° . Catheter à permanence again introduced into the bladder.

30th, A.M. Some pus in the urine; the catheter removed. Afterward he passed some of the urine through the penis.

1st of September. Bougie (No. 6) introduced through the penis passes through the ruptured part into the bladder. P.M. Pulse 110, temp. 103° .

2d, A.M. Pulse 96, temp. 98° . The greater part of the urine passes through the penis.

3d, A.M. Pulse 82, temp. 98° . P.M. Pulse 90, temp. $98\frac{1}{2}^{\circ}$.

4th, A.M. Pulse 72, temp. 98° . All the urine passes through the penis.

7th, A.M. Wound in the perineum healing. He passes No. 8 bougie daily.

14th, A.M. The wound healed entirely. He passes, himself, No. 17 bougie without difficulty.

Discharged recovered, with directions to pass the bougie twice a week.

ETIOLOGY AND ANATOMY.—The varieties of traumatic injuries of the perineum are very limited. Gun-shot wounds and wounds produced by sharp or cutting instruments are seldom met with, and are mainly interesting to the surgeon from the accompanying grave injuries to the pelvic organs, and owing to which they are beyond the limits of efficient surgical aid. Almost as rarely do we meet with perineal injuries produced by kicks, either from man or horse. Most commonly are these perineal (urethral) ruptures produced by falling across a rope (as in sailors) or a bar, beam or joist (as in laborers). If, then, the diameter of the body against which the perineum strikes is less than the distance between the tubera ischii, the danger of crushing injury of the urethra is great, because the soft parts of the perineum, the urethra occupying a central position, are squeezed between the foreign body and the bony pubic arch. In this form of injury it will most invariably be the bulbic portion of the urethra that sustains rupture, on account of the anatomy of the perineal region. Rupture of membranous portion of the urethra is rarely met with, unless associated with simultaneous fracture of the pubic arch, the grave consequences of which we are rarely able to prevent. The ruptures of the urethral canal may be complete or incomplete. By complete is meant an entire severance of the whole circumference of the canal, thus rendering the introduction of a catheter into the bladder an impossibility. An incomplete rupture is one in which some portion of the wall, roof or bottom is left in situ, along which, with care, a catheter may possibly be passed, sliding along the uninjured part of the canal into the bladder. The refined diagnoses of ruptures of the different layers of the urethral canal,—its mucous, muscular and fibrous coats,—also further partial or complete ruptures of the whole wall, were first pointed out by Serrillon (*Des Ruptures de l'Urethra*, Paris, 1878), and did away with the barbarous distinctions of slight, medium-grave and grave cases of urethral rupture. The experiments on dead bodies published by Poncet & Ollier, all go to prove the important rôle that the triangular ligament (ligamentum transversum—Henle) plays in ruptures of the membranous portion of the urethra, the upper wall of which is literally cut through by this ligament. Hence they advise, in introducing a catheter, that the point should be made to traverse the lower part of the wall, this forming a bridge over the rupture and between the anterior and posterior sound portions of the urethra. Confirmatory experiments have not been made, and most surgical authors still believe that rupture of the membranous portion is almost always complicated with fracture of the pelvic bones. Thompson & Cross, after observations on a few cases, are of opinion that ruptures of the urethra may be due to excessive muscular action.

SYMPTOMS AND DIAGNOSIS.—An intense pain is

experienced in the perineum immediately after the traumatism, followed shortly afterward by swelling in this region from extravasated blood. This swelling is mainly limited to the medial part of the perineum, and gradually becomes harder or more solid from coagulation of the blood, which collects in a variable sized cavity in and around the crushed bulbous portion of the urethra, in and between the second and third layers of the perineal fascia, the limits of which confine the same. Subcutaneous extravasation of blood, and consequent ecchymosis, but not associated with marked swelling, will extend from the tumor forward over the scrotum and downward over the femora to a limited extent, accompanied by pain and tenderness, the latter due to direct injury to these parts. The most important and really pathognomonic symptom is bleeding from the urethra. The quantity of blood lost is sometimes considerable, though rarely sufficient to jeopardize life. The inability to pass urine is discovered on the first desire to empty the bladder, and this is usually the symptom that compels the patient to seek medical aid. With the presence of the above named symptoms, together with the impossibility of catheterization, due to the bleeding resistance in the bulbous portion of the urethra, the surgeon may make certain his diagnosis.

PROGNOSIS depends in the first place upon our power to prevent the infiltration of urine into the tissues. The first effort of the patient to empty the distended bladder will drive the urine into the blood-filled cavity in the perineum, and hence it will pass into the scrotum, viz. into the loose connective tissue beneath the tunica dartos. From the latter it will spread through the subcutaneous tissue at the radix penis; next along the body of the penis, and lastly, wide-spreading, it will extend over the entire surface of the front of the abdomen. It is unnecessary to state that the manner in which the infiltration proceeds is a simple consequence of the anatomical arrangement of the subcutaneous connective tissue, or fascia superficialis of the above-named regions. The consequence of urinary infiltration is, as is well known, a rapidly progressing phlegmonous and more or less gangrenous inflammation of the infiltrated tissues.

This well established fact does not correspond with Menzel & Billroth's experiments on animals. These observers found that the subcutaneous injection of fresh healthy and acid urine was absorbed without causing any inflammation of the injected tissues. A phlegmonous inflammation always took place when alkaline urine—alkaline by decomposition from exposure to the air, or alkaline from a bladder in a state of cystitis—was injected into the tissues. We must remember, however, that the fresh healthy urine in our traumatic cases escapes into tissues wounded by contusion and rupture, and into which blood is extravasated, and these tissues consequently being in a state of considerable nervous depression or shock,—a depression that alone in some cases will be followed by inflammation. This latter fact is well

ascertained from similar lesions in other parts of the body. The phlogotic power of healthy urine, slight as this is, is quite sufficient to cause the readily-started inflammation and mortification of these already half-dead tissues.

Increased semi-edematous swelling; spontaneous and continuous pain; dirty-brown discoloration of the tegumentary covering; pulse more or less increased, with elevated temperature, all tend to mark the onset of the secondary inflammation — an inflammation liable to terminate in general sepsis and death. Supposing, however, that proper and timely surgical aid and adequate treatment have carried the patient through this inflammation with tissue-loss only; another serious complication may now present itself on the part of the bladder. A certain number of these patients, not yet statistically determined, will succumb to diphtheritic cystitis and consecutive suppurative nephritis. This septic inflammation of the bladder undoubtedly results from an extension of the phlegmonous phlogistic poison along the posterior uninjured portion of the urethra to the wall of the bladder. The danger of this grave complication is evident from the fact that the entire materia medica is almost powerless against its ravages. This variety of cystitis belongs to the great family of septic inflammations, and consequently is preventable only by the most rigorous antiseptic treatment.

The two before-mentioned grave complications either prevented or overcome, the prognosis is good for the time being, as far as the patient's life is concerned. Next must be considered the future function of the urinary organs and the unavoidable resulting traumatic stricture, due to the contractions of the lately formed connective tissue, the scar or cicatrix replacing the loss of substance in the ruptured urethra. But of course this consecutive complication is beyond the limits of our present subject.

TREATMENT.

The main indications in our treatment of urethral rupture are three, viz:

1. To prevent the infiltration of urine, or, if this has already taken place, to limit its spread.
2. To re-establish the free passage of urine through the urethral canal.
3. To prevent the grave consequences of the unavoidable secondary contraction of the cicatrix of the ruptured portion of the urethra, namely, a traumatic stricture.

The above indications are not all liable to be met simultaneously; but each individually is of the utmost importance in the various stages, or periods of the disease. For instance, in each one of the three periods the one indication most applicable to this period is of paramount importance, whereas the other two indications must only be considered of secondary value.

FIRST STAGE OF A FRESH RUPTURE.—Prevent the infiltration of urine by free evacuation of the contents of the bladder, in one way or another, so as to

prevent the urine from infiltrating the ruptured tissues of the perineum. The means of accomplishing this result, that surgical literature offers, are (a) catheterization; (b) puncture of the bladder, and (c) perineal section.

(a) *Catheterization.*—In trying to introduce a curved metallic catheter, great care must be exercised in handling the instrument as soon as a resistance in the ruptured portion of the urethra is felt. Try gently to slide the point of the instrument along the upper wall of the canal (in ruptures of the bulbous portion), or along the lower wall (in ruptures of the membranous portion near the triangular ligament), and if we fail, after a short and gentle trial, we must abandon the attempt. One point of importance, however, we shall have ascertained by the metallic instrument, i.e. the exact location of the obstruction.

If we succeed in passing the metallic catheter, which we expect to do in some cases of partial rupture, we now evacuate the urine, to the immediate relief of our patient, and leave the catheter à permanence. In current surgical literature we find the reasonable objection to the catheter à permanence being a metallic one on account of the greater irritation produced to the ruptured tissues than is caused by a soft-rubber instrument, but we would like to see the surgeon, knowing the difficulty of passing a catheter at all in these cases, and having been fortunate to succeed in so doing, who would dare to withdraw it after the evacuation of urine and run the risk of repeating catheterization for the purpose of replacing the metallic for a soft-rubber instrument, to be used as the catheter à permanence. If we have failed, however, to pass a metallic instrument, we next try to pass a soft English rubber catheter, and if we succeed we allow this to remain as the catheter à permanence. Thus we have relieved our patient of the immediate distressing pain due to his over-distended bladder, but the question now presents itself, have we at the same time prevented the possibility of extravasation of urine? In most cases probably we have, whilst in other cases some urine may pass along and outside of the catheter, and thus pass into the rupture. The least increase of swelling or tenderness in and around the injured part will indicate the moment when we will have unhesitatingly to make the perineal section, using the metallic catheter as our guide to cut down upon. After removing the clotted blood, the incision must next be carried into the urethra freely enough to insure the complete escape of the urine from the wound.

(b) *Puncture of the Bladder.*—The standard works in surgical literature are still discussing the proper place for the puncture to be made, the choice vacillating between puncture with trochar above the symphysis pubis, or through the rectum behind and above the prostate. The dangers of the former puncture were, up to a recent date, generally considered to be greater than those of the latter. The discussion of this question is needless, since the im-

provement of the original capillary aspirator of Dieulafoi has placed in our hands a perfectly safe instrument for evacuating an obstructed bladder by this method. Any of the modern aspirators may be used. The position of election is in the median line (linea alba) above the symphysis pubis; there the needle should be introduced into the bladder and the urine withdrawn. We have every reason to confirm the opinion (as far as our experience is concerned) of the first author on ruptures of the urethra, Dr. Orlofsky,* of Warsaw, who has recommended this procedure, and in simple duty to himself we will quote his own words: "I must finally say a few words about the puncture of the bladder above the symphysis pubis by means of the aspirator of Dieulafoi. I cannot recommend strongly enough this little and innocent operation. It relieves the patient of his distress immediately, and is perfectly safe from the grave consequences that otherwise may and actually have taken place after the formerly used method of puncturing the bladder. But it is only of value as a palliative remedy; and is only indicated when, for some reason or other, the radical operation, viz, efficient perineal section (external urethrotomy), cannot immediately be resorted to." We shall again refer before closing to the discussion of this latter part of Orlofsky's remarks.

(c) *Perineal Section.* — External urethrotomy, through the ruptured tissues of the urethra, is the first and safest if not always necessary procedure, in order to prevent the infiltration of urine. For this reason it is termed by some authors the radical operation. The attempt at introduction of a metallic or soft catheter having been unsuccessful, and the immediate and urgent distress of the patient having been relieved by aspirating the bladder above the symphysis pubis, we can choose our own time, but will have to resort to this operation as the next step in a rational treatment for the prevention of urinary infiltration. We place the anæsthetized patient in the same position as for lateral cutting for stone in the bladder. Having procured ample light, and this falling directly upon the perineal region, and with a metallic catheter or a stone probe or conductor, maintained by an assistant in the median line with its point against the urethral obstruction, we make a longitudinal medial incision from two to three inches in length, and extending downward upon the end of the catheter or probe. We now remove the blood and coagula from the seat of rupture, and if this be a complete one, severing the whole circumference of the urethral canal, we next try to find the entrance to the posterior part of the urethra. This is generally very difficult to accomplish, owing to the unrecognizable condition of the crushed and bleeding tissues. If we succeed, however, we must introduce a metallic, or, better still, a soft catheter à permanence. But if we fail, after a sufficient attempt, we had better not prolong the operation, but now

clean the wound, control the hemorrhage and postpone further search for the urethral opening for the present. We may expect, as is usual in the majority of these cases, that the free perineal incision into the ruptured portion of the urethra will insure the free passage of urine through the wound. At a later period we may successfully pass an instrument (guide, probe or catheter) into the bladder, guided by the exit of the stream of urine from the wound.

We must still bear in mind, however, that in some cases where we fail to pass an instrument along the posterior part of the urethra into the bladder, the retention of urine may persist (as it did in our case), or it may be overcome for a time only, again setting in. In Orlofsky's first case, where the urine passed freely for two days through the perineal wound, no catheter à permanence having been passed into the bladder, on the evening of the third day a complete return of the retention took place. Aspiration relieved the immediate distress. The next day, proper assistance being procured, he succeeded in finding the entrance to the posterior part of the urethra, guided by the escape of a few drops of urine out into the freshly granulating wound. A soft-rubber catheter was then passed through the penis into the wound, and from the wound into the opening from which the urine flowed, and so on into the bladder, and it was there left à permanence.

The first perineal section having proved unsuccessful, we continue to aspirate the bladder whenever necessary. We may congratulate ourselves on the innocence of this operation, and by its aid we are enabled to wait a day or two until the swelling of the perineal tissues subsides, when possibly the urine will pass through the wound, and thus enable us to gain instrumental entrance into the bladder. We do not advise a longer delay than is strictly necessary, but rather, as in our case, as soon as the re-establishment of the obstruction is evident, and proper assistance and facilities for operation can be obtained, we again repeat our search for the entrance to the posterior portion of the ruptured canal. We can here recommend the same procedure that proved successful in our case, viz, to prolong the incision backward if necessary, next to cut down toward the triangular ligament—care being taken, of course, not to cut through it—and, guided by the left index finger held against this ligament, make a careful search with an olive-pointed or blunt probe in the median line, some five to ten centimetres below the inferior limit of the symphysis pubis. When the probe, no pressure being applied to it, slides in toward the bladder, in the right direction, and almost of itself, the urethra has most probably been found, and the presence of the end of the probe in the bladder may be rendered certain by rectal exploration. A soft catheter can then be easily passed along the penis to the wound, and from the wound along the probe into the bladder, and left here à permanence. It has been and is still considered by some authors that puncture of the

* Centralblatt für Chirurgie, Nos. 14 and 15, 1879.

bladder is a curative procedure in some cases of incomplete urethral rupture. This result might occur in cases where the obstruction in the canal was mainly due to compression from peri-urethral extravasation of blood or serum. When this swelling subsides, the urine may pass per vias naturales, and thus perineal section be unnecessary. We deem it dangerous, however, to rest too much faith on this curative power of puncture of the bladder, and rather consider it, with Orlofsky, as merely a very safe and innocent operation for the removal of immediate distress, and only as a palliative procedure to be replaced by a permanent operation, which insures the complete escape of urine and the certain avoidance of urinary infiltration. Further, we cannot see that any injury to the ultimate function of the urethral tube can result as a consequence of the perineal section itself. After all, the operation can only cause a longitudinal incision through an unhurt portion of the wall of the canal, and the linear scar resulting from this cannot be followed by any remarkable contraction of the canal. The resulting traumatic stricture in these cases of urethral rupture is undoubtedly aggravated but very slightly, if at all, by the effects of perineal section; and even if it were slightly increased, this result is incomparable to the advantages gained by the operation in preventing the otherwise inevitable urinary infiltration, with its subsequent uncontrollable fatal consequence. If, however, urinary infiltration with phlegmonous inflammation have already set in before we see the case, then our line of treatment is the same, only perineal section is more urgently demanded. Besides this we must try to arrest the progressive destruction of tissue by free incisions into the infiltrated parts, by drainage, and by washing out the already formed cavities with weak solutions of carbolic acid, thymol (1 in 1,000), or saturated solutions of boracic acid.

Local applications, cold (France and Germany) or hot (America and England) are of little or no curative value, and if used at all the choice would depend upon the one that gave the greatest relief from the perineal pain. Prolonged hot baths would be more efficient. Internal treatment, if required, should be merely symptomatic.

SECOND STAGE OF THE RUPTURE.—Here the treatment all tends to the reestablishment of the function of micturition. If it were possible to keep the catheter à permanence in the bladder from four to six weeks, or during the time required for the healing up of the perineal wound, the treatment at this stage would be simple enough. But any kind of permanent catheter acts as a foreign body to the bladder and causes cystitis. When the urine gets milky from admixture with pus-cells (the diagnosis of the same is alone possible by means of the microscope) it is then advisable to remove the catheter before the urine becomes alkaline or has a characteristic ammoniacal odor. A slight and commencing cystitis will most

frequently pass away after removal of the cause. We may, however, at the same time, more to quiet our own conscience than for the amount of good we are likely to achieve for our patient, send the entire army of internal and local remedies into the field, in the forms of warm baths, poultices over the hypogastrium, camphor and opium, tea of triticum repens, tannic acid, copaiba, etc.

If the catheter be retained till this cystitis becomes more severe (alkaline, slimy urine, painful tenesmi urinarii and fever) we run the risk of its becoming diphtheritic and uncontrollable, a condition favorable to suppurative nephritis and a fatal termination. But if, on the other hand, a few days after the removal of the catheter à permanence the urine becomes again clear and natural, the catheter may be again permanently inserted. Meanwhile the rupture in the urethra will be gradually closing up, followed by at first a partial passage of urine through the whole length of the canal, and at a later period the escape of the entire quantity at the meatus urinarius.

THIRD STAGE OF THE RUPTURE.—Here the indication is to prevent the grave consequences of traumatic stricture. It is beyond the curative power of nature to restore the lost part of the urethra, i.e. to produce anew the main elements of the wall of the canal, namely, mucous membrane, cavernous or erectile tissue and musculo-fibrous tissue. The loss of substance will here, as in any other part of the body, have to be replaced by young connective tissue, the physiological characters of which are that it will become at a later period firmer, less elastic, and less rich in vascular supply, and steadily contracting; thus will be formed a canal or tube, the diameter of which will be surely and gradually diminished till stricture, without interference, would result. We can only employ mechanical means to counteract this contraction, and consequently bougies must be introduced during the remainder of the patient's life. At first there may be found some difficulties as to the best shaped bougie and the readiest means of passing it, etc. Sometimes the common blunt bougie, sometimes the olive-pointed bougie, or again a bougie or soft catheter shaped like Mercier's prostatic catheter, will have to be used, according to the shape of the cicatrix in the formerly ruptured portion of the urethra. The surgeon will have to supervise this treatment himself until the patient, unaided and without difficulty, is able to pass the instrument himself. Then the patient must be instructed that he will have to pass the bougie as an essential part of his toilet: first twice a week, later once a week, and never less often than once in two weeks, as the only, but at the same time comparatively sure, remedy or preventive against the severe consequences of a neglected traumatic stricture, the impending dangers of which he will have to bear in mind for the remainder of his life.

[CONTINUED.]

REMEDIES OF VEGETABLE ORIGIN.

Observations and Practical Suggestions concerning Five Remedies of Vegetable Origin which are not in general use.

BY DR. JAMES I. TUCKER, CHICAGO.

Having used and carefully tested the therapeutical value of the following remedies, I desire to submit to the medical profession my observations and some practical suggestions concerning them. My own experience, founded upon the critical observance of phenomena, convinces me that they should have more extended application in medicine.

Cactus grandiflora.—This well known flowering plant is not mentioned at all by Stillé and Maisch, and only a very brief notice is given it in the United States Dispensatory, and yet to my certain knowledge it is one of the very best remedies for functional derangements of the heart. The administration of digitalis at the bedside requires the most vigilant supervision; how unsafe, therefore, must it be to prescribe it for one who casually drops into your office to get a prescription for cardiac disorder! But the use of digitalis and kindred agents is rendered unnecessary in view of the fact that we have in cactus a potent and innocent medicine. We should not willfully disregard the *tolle causam* of Hippocrates and his disciples, but it is pardonable if we do lose sight of it sometimes, for causes do not always lie on the surface—they are often inscrutable. I use cactus in the conditions which may be called the "tobacco heart" and the "tea" or "coffee heart," as well as in cardiac palpitation of emotional origin. How wide a therapeutic range cactus has is not yet known.

Rubini's tincture is made of 120 grammes of the fresh stems and flowers and a pint of alcohol of ninety-five per cent, macerated a month and filtered (United States Dispensatory). The dose is from ten to thirty centigrammes, but I have often given as much as two grammes of the inconstant tincture commonly found in the drug stores. Certainly a more definite formula is necessary.

Betonica officinalis.—This is one of the tribe of stachydiæ, indigenous to southern Europe and found sparingly in New England. But little mention of it is made in the works on *Materia Medica*, and it is very little in use. It is certainly useful in chronic hepatic derangements. It quickens the functions of the skin and kidneys, removes œdema of hepatic origin, and, by virtue of its general tonic properties, restores the harmony and tone of the circulation. The bitter principle which is probably common to all these tribes, and the possible embodiment of an important alkaloid, has not yet been isolated. My experience with this medicinal plant is comparatively limited, but I have used it in a sufficient number of test cases to lead me to believe in its efficacy.

It occurs in the National Dispensatory under the head of "Leonurus," but in the United States Dispensatory the tribes are noticed separately. It may

be given in decoction or tincture. Of the latter form the dose is from one to four grammes.

Colocynth.—I have at other times and in other places written about the *tincture* of colocynth. For the purposes for which this drug is generally used this form of preparation is much inferior to the powdered pepo or the extract, which, also, is used in the majority of cases in combination with other drastic purgatives. With this I have nothing to do at present. What I wish to draw attention to anew is the power the tincture has, when properly administered, to allay intestinal colic, that form, especially, which probably belongs to the acute visceral æsthesio-neuroses. But I insist that the dose shall be small and frequently repeated. I do not add more to the vehicle than enough to give it a not unpleasant but decided bitterness. I have seen opium and belladonna aggravate this complaint when colocynth acted like a charm. There is no doubt, I will remark in passing, that there is a great difference in the small and large doses of the self-same medicine, which renders their operations diametrically opposite. It is important, therefore, to learn the new therapeutic powers of the old drugs as well as to inquire into the properties of the new. This opens up a wide field of investigation.

Pulsatilla.—*Pulsatilla* is rapidly growing in favor with many practitioners. Though a very old remedy, having been known to Dioscorides and Pliny, it fell into disuse, if not into disrepute, and was not reinstated till about the beginning of the present century. I have used *pulsatilla* mainly in simple dysmenorrhœa, and here it has proved of decided utility. Its scope is, however, doubtless much wider. A very prominent lawyer of this city told me not long since that after trying the bromides, the valerianates and other remedies of repute for the headaches caused by excessive mental application, he found no relief till he made use of the tincture of *pulsatilla*. He is now never without it, and uses no other medicine for the cure of his headaches, which I know to be very severe. No such powers are attributed to it in the books to which I have access. This is an exceptional case, it may be, but it is a valid one.

The tincture of *pulsatilla* should be made from the fresh plant, and given with caution. The dose is from three to ten drops.

Bursa Pastoris.*—Another medicinal agent of vegetable origin, and the last to which I intend to call your attention just now, is the *Bursa Pastoris*, or Shepherd's Purse, one of the cruciferous plants native to Europe, but extensively naturalized in this country. I used it at first to relieve the incontinence of urine in aged people, especially women, and was surprised and delighted at the promptness of its action in the removal of this troublesome complaint. Latterly I have extended its use so as to cover many of the dis-

* *In re BURSA PASTORIS*, Dr. H. G. Piffard, of New York, sends me the following quotation from *Morandus Historia Botanica*, etc., 1761, p. 89: "*Hinc valet in hemorrhagia narium, exspiritione sanguinis, diarrhœa, dysenteria, mictione cruenta (gonorrhœa), fluxu nimio mulierum.*" There is nothing new under the sun.

orders of the urinary apparatus, notably cystic irritability and some forms of chronic disease of the kidneys. Though it is mentioned by Stillé and Maisch as a stimulant to promote menstruation, it was by accident that I learned that it possessed this power. A lady had not menstruated normally for two or three years, and therefore, when I was treating her for urinary disorder, she did not think it worth while to mention the fact. At the next catamenial period, to her surprise, she menstruated profusely, and asked me if the medicine she had been taking had anything to do with it. I did not know, but since then I have frequently had opportunities to demonstrate its emmenagogue properties. Strange to say, it is also hemostatic, and is used in menorrhagia and hematuria.

The dose of the tincture is thirty drops four to six times a day.

THE PATHOLOGICAL INFLUENCE ON THE NERVOUS CENTERS OF PERIPHERAL IMPRESSIONS ON THE LOWER LIMBS.

BY DR. ONIMUS.*

[Read before the Soc. de Médecine de Paris, May 10, 1879.]

The relation between peripheral excitations and the calling into activity of the nerve centers is well known to all physiologists. In a pathological point of view this relation has likewise a considerable degree of importance. In fact, it is to a peripheral impression, due to humidity and cold, that rheumatic affections of the cord and its envelopes are due. The greater number of cases of myelitis have no other origin, and we have a number of observations of cases of the atrophic paralysis of infancy, to which I shall have occasion to again refer, in which the action of cold appears very clearly to have been the cause of this terrible disease.

I desire at present only to mention a fact that I have verified on many occasions, and which demonstrates very satisfactorily the modifications produced in the cerebral circulation by peripheral excitations. It is in regard to the influence of the electrization of the sciatic nerve on sleep.

In the case of a number of patients to whom, for the relief of various affections, I have applied electric currents, and particularly the continued current to the thigh, we have noticed that a profound slumber followed the electrization. This was altogether unanticipated, both by the patients and myself, since it was not the point to which our attention had been directed. I sought rather to find out whether the muscles of the limb were gaining power, or, in the cases of sciatica, whether pain was diminished. It was only by accident that I was led to observe this particular effect, since having, during several months, the care of a large number of patients suffering either from muscular atrophy of the lower limbs, functional loss of power, or sciatica, I was struck with hearing nearly all mention this symptom.

Let me say, just here, that it is not constantly ob-

served in all the patients, and that especially in the case of those suffering from neuralgia or neuritis, pain during the night often prevented profound slumber.

I use the words profound slumber, or even heavy slumber, because these are the terms that the patients voluntarily employed to express the condition, which is a little different from ordinary sleep. In fact, waking at the usual hour is difficult. The patient only arouses from his stupor after repeated efforts, and there is an almost invincible desire to prolong his slumber.

By applying the electric current in the region of the cervical ganglia, we obtain, it is true, similar phenomena very frequently, but it is, perhaps, still easier, in some persons, to produce them by galvanizing the sciatic. This certainly very curious fact ought, nevertheless, not to astonish us, as we are aware how, in physiological experiments, the electrization of the sciatic nerve influences the general circulation and arterial pressure. In rabbits the circulation and temperature of the ear is modified by excitation of the sciatic nerve.

A still better demonstration of the influence of excitations of the sciatic nerve on the cerebral circulation is afforded by the celebrated experiment of Brown-Séquard. The section of the sciatic nerve, in fact, suffices to produce epilepsy in some animals, and it is well known that the attacks of epilepsy are accompanied in these cases with changes in the circulatory system.

But whatever theory of sleep is adopted, it is certain that this physiological process is connected with changes in the cerebral circulation. It is, therefore, nothing astonishing that the peripheral impressions that produce changes in this circulation should also have an influence upon sleep.

I do not believe, nevertheless, in a practical point of view, that we should draw the inference that to cause sleep we have only to galvanize the sciatic nerve. It is none the less useful, however, to be aware that this effect is produced in even a few cases.

The primary fact of these observations is the importance of the influence of peripheral impressions on the circulation of the nervous centers, and especially that of those on the sciatic nerve or the lower limbs. In hygiene this influence is not sufficiently regarded, and, in my opinion, not only do we take no account of it, but in the clothing of infants we produce the same effects as are observed in physiological experiments and in the clinic. This is the only practical point on which I deem it needful to insist, since it has a certain importance.

During some years past the bad practice has been adopted of exposing the limbs of children. This fashion of leaving the calves uncovered is a whim of most mothers, and they excuse it on the ground that thus enduring the atmospheric changes hardens and renders the children robust. Without denying a happy effect in some cases, it is none the less certain that

* Translated from L'Union Médicale, No. 88, 1879.

the result is most damaging in many others, and that the lives and healths of the children are compromised by the practice. If, like the Spartans, we sought to make a trial of the strong and feeble children, one could easily understand this way of doing things. Fortunately, this is not the case, and it is no longer permissible to strengthen a child by means which, if they fail to succeed, compromise the infant's health and even its life. Common sense is enough to demonstrate how dangerous this practice is, for, as Madame de Sevigne has said in a letter to her daughter, "If your son is strong, a rustic's education is very good, but if he is delicate, I caution you lest, in trying to make him robust, you sacrifice him."

Again, it is also an error to suppose that children are less sensitive to cold than older persons. The contrary is the case. We doubt whether many adults could go out with naked limbs without great discomfort. We repeat, the lower limbs being exposed to all atmospheric changes produces a general chilling that is often the cause of rheumatic congestions of the nervous centers, and we are persuaded that even the affections *a frigore* of the respiratory organs are frequently due to this mode of dressing, for we generally catch cold from cold feet. It is to be remarked that exposure of the arms and even of the shoulders gives rise to colds less often than do cold feet. It is a very old hygienic rule to keep the feet warm, and we believe that it is possible to protect the necks of children perhaps too much, while the reverse is the case with their lower members.

The influence of chilling of the lower limbs certainly acts on the circulation of the cord, and we know how exposed infants are to that almost incurable affection, atrophic paralysis. Every time that we have been able to obtain full and exact data, we have found that an exposure to cold was the cause of this disease. The vessels of the cord, and particularly those of the gray substance, which are the most numerous, are congested by reflex action, and thus cause the symptoms of paralysis. Also, it is in conditions where the causes of chilling are most numerous that this affection is most frequent and at the same time most terrible. In some cases we have seen this affection produced by exposure of the lower limbs to cold, and we would add that even in summer, although then there is less inconvenience in nudity of the limbs, it is, nevertheless, needful to shun shady places and stone benches, especially after exercising any length of time, and with much exertion of the nerves and muscles.

On the other hand, excitation and irritation of any peripheral nerves act on the nervous centers, and in certain pathological conditions of these centers the influence is enormously intensified, for a simple electric current, or the contact of a metal, a loud noise, a flashing light, a penetrating odor, suffices sometimes to bring on hysterical attacks, catalepsy, etc., but nothing, in our opinion, exerts this influence so much as impressions on the inferior members. Not

only are the nerves in these cases the ones most distant from the centers, but the patients of whom we speak were not hysterical, but in the most favorable conditions for observation.

The sciatic nerve appears to be, of all the peripheral nerves, the one that exerts the greatest influence on the nervous centers. In a physical point of view, we repeat, we obtain greater effects on arterial tension and on the diameter of the vessels of the brain and cord by using the sciatic than by employing any other peripheral nerve.

Reciprocally, it is quite as curious a fact, and one meriting the attention of physicians, that whenever affections of the nerve centers cause eccentric irradiations to the peripheral nerves, it is in the sciatic especially that these phenomena take place. Thus, not only in sclerotic disorders of the cord, in which pain in the sciatic might naturally be expected, but also in cases of cerebral lesions, the cord being uninvolved, pains occur in the thighs, formications are felt in the lower limbs and the plantar surface of the feet may become anæsthetic. To cite, finally, one of the most striking examples, we may mention the lancinating pains in the thighs in certain cases of cerebral tumor that have such an analogy with the fulgurant pains of locomotor ataxy that an error of diagnosis is even possible. Is not this one of the most characteristic examples of the relation which exists between the activities, either normal or pathological, of the sciatic nerve and the nervous centers?

DIFFICULT FORCEPS DELIVERY.

A case of Labor with Occipito-Posterior Position, Impacted Head, Protracted and Powerless Labor, and Partial Laceration of the Perineum.

BY PHILLIP ADOLPHUS, M.D., CHICAGO.

[Read before the Chicago Medical College, December, 1879.]

Dr. S—— sent for me on Sunday, September 21, at 5 A.M., to see in consultation Mrs. F——, a primipara, twenty-two years of age, at full term, whose labor had commenced the previous Friday at 1 A.M., fifty-two hours before. The membranes had ruptured five hours previously, and the head had failed to advance for several hours. No foetal heart-beats were appreciable, soft parts were cool, the os was dilated, and head impacted in cavity, with the anterior fontanelle presenting directly forward and somewhat to the left, corresponding nearly with the upper third of the posterior surface of the pelvis. The head was well moulded by the overlapping of the parietal bones along their sutures. An ineffectual effort at delivery with forceps had been made before my arrival. Patient having received no anodynes, was in an irritable condition, and urgently implored relief. 30 μ of Magendie's solution of morphia was given in two equal portions, which removed pain and restored fortitude. Patient and repeated efforts were made to introduce Hodge's forceps, and not until the administration of ether could I succeed in locking them. Delivery was

very difficult. Traction, at first gentle, were increased until all the strength of my arms proved insufficient to advance the head. The patient's pelvis was held firmly, while the hands of Dr. S—— depressed the fundus of the uterus. Stemming my foot against the side of the bed, these powerful tractions were continued. Frequent relaxations of the handles were made to relieve pressure upon the brain of the child, and to recover strength. Overcome by fatigue from these tractions, the writer was twice relieved by Dr. S——, who in turn became exhausted each time. The large flexed head fully distended the perineum. Great assistance was derived by introducing two fingers well within the rectum through the widely opened anus, to make sure of the relations of the forceps to the head and the soft parts, to increase the flexion of the head, and to relieve pressure upon the perineum.

After exhausting efforts of an hour's duration the large head and face of an almost asphyxiated male child was delivered. The occiput presented posteriorly. The child remained ten minutes in that position before the shoulders could be delivered. The perineum remained intact during the delivery of the head, but the shoulders tore it with one sweep almost up to the rectum, and at the same time the nymphæ on the right side below the vestibule gave way for about an inch, producing considerable hemorrhage.

Slight pulsation of the cord was felt. The hemorrhage, on cutting the cord, partly relieved the congestion. Immersion of the child's body alternately in hot and cold water, and artificial respiration, were followed by inspiration and a feeble cry. Under prolonged application of dry heat the child finally recovered. Its weight was ten pounds. The head and shoulders were very large. It was marked on the right parietal bone by the lower half of the blade of the forceps. The lower portion of the right ear was also slightly notched. The skull was greatly elongated; the head was compressed by the overlapping of the parietal bones, and almost black from unoxygenated blood. But the child was soon restored, and has since remained well.

REMARKS.

In connection with the report of this case, Dr. Adolphus remarked that the patient may endure a protracted labor with comparative comfort if anodynes be given. He gave preference to five-minim doses of Magendie's solution under these circumstances.

In ordinary forceps cases he preferred to have the woman conscious, but there were cases, like the one in point, where the application of the forceps was made easier by anæsthesia.

Posterior occipital positions, if recognized early, may then be converted into anterior positions, with the hand alone, or assisted by the rectis. Later in labor, when the head has descended into the pelvis, the position cannot be changed.

In some instances the woman may be delivered

without aid; usually, however, the long forceps should be used "patiently and boldly."

Dr. Adolphus alluded to the increased liability of laceration of the perineum in posterior occipital positions, and advised a careful inspection of the parts, and immediate stitching of the laceration, should one be found, as the best means of protecting the woman from the multitude of subsequent complications which arise from neglected lacerations.

LECTURES ON LITHOTRITY.—The Evansville Medical College, at Evansville, Indiana, has arranged a course of lectures on lithotripsy, to be given by Dr. Reuben A. Vance. The course will commence at 10 o'clock A.M., Wednesday, February 11, 1880, and will consist of three didactic and two clinical lectures. The profession are generally invited to attend. Operations will be performed before the class. Dr. Vance asks physicians having indigent calculus patients to communicate with him at 113 West Ninth street, Cincinnati, Ohio, with the view of sending them to Evansville for operation before the class.

A CORRESPONDENT of the Boston Medical and Surgical Journal reports a case of eruption, described as a hybrid between lichen and eczema, or lichenoid eczema, following the administration of fifteen grains of salicylate of soda every three hours for acute rheumatism. The medicine also nauseated the patient, though it apparently relieved the rheumatism, which became aggravated after its discontinuance, the gastric symptoms and eruption disappearing at the same time. On the resumption of the drug the eruption again appeared in full bloom, with the same gastric troubles.

OFFICIAL LIST of Changes of Stations and Duties of Officers of the Medical Department United States Army, from January 16, 1880, to January 31, 1880.

Heger, A., major and surgeon. So much of the order as directs him to proceed to San Antonio, Texas, on or before February 1, 1880, is amended to read on or before February 20, 1880. S. O. 19, A. G. O., January 26, 1880.

White, C. B., major and surgeon. His leave of absence on surgeon's certificate of disability granted him July 24, 1879, extended six months on surgeon's certificate of disability. S. O. 20, A. G. O., January 27, 1880.

Tremaine, W. S., captain and assistant surgeon. His extension of leave of absence on surgeon's certificate of disability of November 11, 1879, further extended twelve months, on account of sickness, with permission to go beyond sea. S. O. 18, A. G. O., January 24, 1880.

Taylor, M. K., captain and assistant surgeon. The leave of absence granted him from headquarters, department of Texas, is extended one month. S. O. 9, division of the Missouri, January 19, 1880.

Worthington, J. C., 1st lieutenant and assistant surgeon. Relieved from duty at Ft. Grant, A. T., and assigned to duty at Ft. McDowell, A. T. S. O. 4, department of Arizona. January 8, 1880.

Chicago Medical Gazette.

PUBLISHED ON THE 5TH AND 20TH OF EACH MONTH.

OFFICE OF PUBLICATION, 70 MONROE STREET.

TERMS, \$2 A YEAR, IN ADVANCE.

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Physiology and Diseases of the Eye, Ear and Throat.

S. V. CLEVENGER,
Medical Physics.

E. C. DUDLEY,
Gynecology.

Editorials under the heads of the special departments may generally be accredited as indicated above.

VOLUME I.

CHICAGO, FEBRUARY 20, 1880.

NUMBER 4.

THE IOWA STATE MEDICAL SOCIETY held its annual sessions in Des Moines, Iowa, January 27, 28 and 29. The most important feature of the proceedings was the discussion of the establishment of a State Board of Health by legislation. This subject occupied the greater part of the address of President Hanawalt. Every state in the Union is in need of laws to regulate the practice of medicine. Should Iowa succeed in securing such laws, it is hoped that provision will be made for their rigid enforcement, and that the profession in that state will not take the retrograde step which has characterized some of the workings of the law in Illinois. In the early part of the present century it was the habit of medical societies to grant certain non-graduates licenses to practice. The legitimate consequences of the plan were large numbers of regularly authorized incompetent physicians. Finally the plan was abandoned, and for many years the college diploma, questionable though its value may be, was the only passport to a recognized standing in the profession. Notwithstanding the criminal carelessness with which medical colleges have manufactured incompetent doctors the diploma has proved a better criterion than the license. But the Illinois State Board of Health, in compliance with the so-called Medical Practice Act, has gone back fifty years and revived the old custom of the license, and is now holding frequent examinations in various parts of the state for the accommodation of any who may desire to be licensed. The liberality of this Medical Practice Act is remarkable. It permits the State Board of Health to license any one who may comply with the requirements of its examination. It is intimated that the Board has been careless in the frequent bestowal of the rights and privileges of the profession upon men whom the most careless medical college had struggled in vain to graduate. An

army of those "pests of the lying-in room" called midwives also enjoys the privileges which have lawfully been conferred upon them through the singular beneficence of the Medical Practice Act. The action of the State Board of Health in the granting of licenses may be questioned in a future issue. The general efficiency of the Board is not increased by the absence of any legislative provision whereby it shall receive adequate pay for its services. It is the duty of the state to pay, and the duty of the profession to see to it that medical officers do their work.

LUNACY REFORM IN NEW YORK.—We have received in pamphlet form the reply of the New York Neurological Society to the report of the Public Health Committee of the New York State senate on the asserted abuses in asylum management, to which allusion was made in the editorial columns of our issue of January 20. It is signed by Drs. T. A. McBride, E. C. Spitzka, E. C. Harwood, W. J. Morton, E. C. Seguin, L. C. Gray, and W. A. Hammond, whose names certainly ought to carry more weight with the members of the medical profession than those of the two obscure politicians appended to the report referred to. The answer, after first stating in a general way the circumstances that have called it out, takes up separately the charges of the senate committee that reflect on the motives and character of the petitioners. Apart from the alleged facts which it contained, that report can carry no weight, and if these are disproved it stands before the world as a grossly partisan document, the bare opinions of which are discredited by the very disreputable methods employed to support them. It did not need the answer before us to convince the intelligent members of the profession that the asylum management was not all that that report represented. All that was necessary,

therefore, for the Neurological Society to do was to show that the senate committee had misstated facts in a public document sent forth under the auspices of the governing body of the great State of New York. This they have done in a way that renders necessary explanations on the part of certain individuals to put themselves in any favorable light before the public. For example, it was stated by the senate committee that President Barnard, of Columbia College, repudiated his signature on the petition. In this reply Dr. E. C. Seguin states—and fortifies his assertion with an affidavit—that Dr. Barnard not only signed the petition, but had ample opportunity to know its purport, having had it several days at his house. With his memory thus refreshed, it will be next in order to hear from President Barnard again if he wishes to be relieved from the equivocal position in which he has been placed by the senate committee. Others who were stated to have repudiated the petition are here set right by letters over their own names, indicating that the senate committee, taking altogether an unduly favorable estimate of their conduct, made statements without taking sufficient care to ascertain whether or not they were true. It is unnecessary to notice in detail how the misrepresentations and misstatements, the suppressions of facts and suggestions of the false by the senate committee are here met and answered. It probably makes very little difference to the members of that committee how they are shown up as falsifiers, but it will have an effect on those behind them, in whose defense their report was made, to have it shown that such is their most effective reply to the charges that have been made against their management of asylums. We need hardly say that we do not include all asylum superintendents in this condemnation, for there are those among them that have our profound respect. But that in the systems of asylum management in this country there are abundant needs for reform, that the standard of scientific spirit and acquirements of the superintendents as a body is low, and that there are among them altogether too many whose sole recommendation is the personal and political influence they can bring to bear upon appointing boards composed of politicians, and in short that the movement started by the Neurological Society, whatever its temporary fate may be, is a timely one, no one who has the least acquaintance with the facts can, in honesty, deny.

WE offer here our condolences to the editors of those medical periodicals that, like the Boston Medical and Surgical Journal, used the opportunity of the publication of a synopsis or summary of the New York Senate Committee's report to indulge in virtu-

ous comments on the wrong-doings and malicious spirit of the lunacy reformers. Their keen sensibilities to the alleged "outrage on the honor of a decent and respected profession" which led them, on the unsupported word of two New York politicians, to asperse by implication the integrity and intelligence of some of the most honored and honorable members of that profession will, we fear, be again wounded by this exposure on the part of the Neurological Society.

PRINTED slips containing a statement of the action thus far of the committee appointed at the Cooper Institute meeting of December 18 have recently come to hand. This committee, consisting of Messrs. William C. Church, Dorman B. Eaton, Charles E. Whitehead, and Drs. G. M. Beard and E. C. Seguin, have prepared a bill to be submitted to the legislature for the reorganization of the State Board of Charities, the text of which, with an explanation, is given. The slips also contain a letter from Mr. Dorman B. Eaton reviewing the present condition of lunacy administration in New York and a comparison with that of Great Britain. The movement has now obtained an impetus that ought to carry it through, and extend the needed reforms to all the states and territories.

CAILLOT AND CH. LIVON publish the results of their experiments, taking up the line of investigation started by Gautier and Skolosubow to determine whether arsenic introduced into the system continuously, over a considerable period of time, collected in the brain substance, displacing the phosphorus that passes out through the urine, so that glycerio-arsenic acid takes the place of glycerio-phosphoric acid, and lecithine contains arsenic instead of phosphorus. Their experiments performed upon guinea-pigs have entirely confirmed these views, and have demonstrated as large a quantity of arsenic in the brain as would be considered, when found in the liver or bones, of especial medico-legal importance. Ludwig, however, has had different results from some recent experiments, finding a much smaller proportion of arsenic in the brain than in other organs.

THE CANADIAN MEDICAL JOURNALS are distracted over the question as to the date when the new law regulating practice is to be enforced. L'Abeille Médicale points out that the English version of the enactment published in the Canada Medical Record does not accord with the French conception of the same as given by l'Union Médicale du Canada. It looks as if the Medicus Canadensis would have to wait for protection until another session of Parliament, and that with all their law-making they have failed to make a law.

RADICAL CURE OF HERNIA BY SUBCUTANEOUS INJECTION.—Subcutaneous, or rather parenchymatous, injections for the radical cure of small reducible herniæ have been recommended by different writers during the last two years, and have, on account of the above heading, attracted some attention. The substances used for injection were ethyl alcohol, 70 per cent (Schwalbe); methyl alcohol, 20 per cent to 60 per cent; phenyl alcohol, 2 per cent to 4 per cent; solution of chloride of sodium (Luton); solution of tannic acid, (Halton). The above-named substances injected into the tissues, cause a slight degree of inflammation, resulting in the formation of cicatricial connective tissue—a subcutaneous scar—that fills up the hernial ring and forms adhesions between this and the skin, thus closing up the opening of escape and forming a barrier against the protrusion of the intestines. Schwalbe has published nine cases (*Allgemeine Medicinische Central Zeitung*, July 26, 1879). He uses a common hypodermic syringe. The patient lies down on a bed or a lounge, and the truss is removed; the finger is introduced into the inguinal canal, to render certain the complete reduction of the hernia. The finger is now withdrawn and the needle of the syringe is introduced at a distance of two centimetres from the external ring; the point is then pushed subcutaneously toward the neck of the sac. The surgeon now waits one or two minutes to see that no blood escapes through the needle; he next screws on the barrel of the syringe, and slowly injects into the tissues a half or the whole of its contents. If the skin at the site of injection become white from over-distension, the injection should be stopped, and the needle inserted at another place. If this precaution be not taken, a superficial gangrene of the skin may result. The surgeon injects, at one time, one to two cubic centimetres of alcohol, 40 per cent to 80 per cent, and repeats the injection every three, five or seven days, according to the amount of resulting inflammation of the injected tissues. The point of the needle must always be kept at a distance of at least half a centimetre from the inguinal canal, so as to avoid injecting the fluid into the hernial sac and the cavity of the peritoneum. Umbilical and inguinal herniæ, and herniæ occurring in the line of the linea alba, may be treated without the patient remaining in bed. The duration of treatment ordinarily extends from seven weeks to six months. On close examination of the details of these nine cases published by Schwalbe, we find the results not very satisfactory. Of six cases of inguinal hernia, incomplete or only temporary cure occurred in five. The only case of cure occurred in a recent and small hernia of the right side, where, from nineteen injections during a period of six months, a perfect result was

determined one year afterward. In one case of crural (femoral) hernia the treatment was interrupted before the completion of cure. One umbilical hernia, and a hernia lineæ albæ—each the size of a walnut—were cured after one and six injections respectively. The conclusions from the limited number of observations thus far published seem to show that this method is only applicable to the small herniæ in the linea alba, and to the umbilical variety. It is questionable, however, whether the method is entirely free from danger. After some of the injections in the foregoing cases suppuration and abscess followed; but they were opened, and did not result in grave consequences. The method, on the ground of common sense, is liable to be rejected by many surgeons. The substance injected is irritating, so that the necessary inflammation may follow, the limitation of which is beyond surgical power in tissues close to, or communicating with the peritoneal cavity. Therefore, at present this method may be considered second to the operation for radical cure, by which may be obtained certain results through the agency of means more readily controlled.

RETRO-ŒSOPHAGEAL GOITRE.—Only three cases have been recorded, one by Kocher, one by Czerny, and one by Schnitzler. The pathognomonic symptoms are the combination of dysphagia and dyspnoea. Schnitzler's patient, not operated upon, died of fatty degeneration of the heart. Czerny's patient sustained the operation for radical extirpation and recovered. Kocher publishes in *Correspondenzblatt für Schweizer Aerzte* 1878, No. 23, an account of his case with successful operation. The right lobe of the thyroid gland had enlarged upward between the œsophagus and cervical vertebræ until it could be felt by the finger, in the pharynx, as a firm tumor, reaching to the lower border of the soft palate, and extending from the right to the left past the median. It was of the size of a hen's egg, but somewhat flattened. Patient had suffered from dysphagia for six years, and from dyspnoea upon active exercise. These symptoms were finally intensified in consequence of acute inflammation in the tumor. The tumor was removed July 15, 1878; a long incision along the right border of the sternocleido-mastoid muscle through the skin, platysma, fascia, omo-hyoid muscle; then the tumor was pressed out by the finger of an assistant in the pharynx, and the fascia covering the tumor was dissected loose. All bleeding vessels were doubly ligated, including the thyroid artery and vein. A catgut ligature was then applied to the pedicle connecting the tumor with the right lobe of the gland proper, and the tumor was cut off just above the ligature. Patient was discharged cured in fourteen days.

THE APPLICATION OF THE VAGINAL TAMPON for hemorrhage cannot be made efficiently by means of any other speculum than Sims'. Its introduction through this instrument is so well described in Emmet's Principles and Practice of Gynecology that we give the substance of these directions. Empty the bladder, place the patient in Sims' latero-prone position and introduce Sims' speculum; place a pledget of cotton, freshly dampened with a solution of alum, over the cervix; then roll up a mass and place it in the posterior cul-de-sac, also on each side and in front; cover all this with a flat piece of cotton; then place pledgets around the cervix, in a circle, and fill in the center; with a stout whalebone or wooden stick in the left hand, and a pair of dressing forceps in the right, press back the cotton from the circumference to the center, and as room is thus gained fill it with more cotton. When the vagina has been well filled with the tampon, press it firmly back with the stick from the anterior wall toward the hollow of the sacrum and slip the speculum in front of the mass. As the speculum is then drawn back by the assistant, the space left will extend nearly to the uterus. This is to be filled in the same manner and the speculum withdrawn *pari passu*, until the whole canal is firmly packed. No violence should be used, but by going around and around the mass, and firmly packing in with the stick and the forceps one small portion after another, almost the entire pelvic basin may be filled. If the tampon be large, confine patient in bed and give anodyne. Empty bladder with flexible male catheter. Tampon should be renewed as often as twenty-four hours.

THE RESPIRATORY CENTER IN THE MEDULLA OBLONGATA is the topic of some recent investigations of considerable importance. It has been known for some time that this center is really bi-lateral or double, since the respiration continues regularly, although the medulla be split by a longitudinal section in the median line. Lately, Dr. Langendorff has again taken up these experiments upon rabbits (*Centralblatt*, No. 51, 1872). Laying bare the medulla oblongata, he divided it longitudinally. This procedure did not disturb the normal rhythm of respiration. But when the pneumogastric nerve of one side was divided, the corresponding half of the thorax did not move in unison with the other, its rhythm being slower. The greatest irregularity was produced by division of both pneumogastrics, whereupon each thoracic half acted entirely independent of the other. This result shows also that the diaphragm is in reality a double muscle, since its two halves may contract independently. In the normal state, the two halves of the respiratory center are so connected by

transverse anastomoses that interference with one or both pneumogastric nerves affects the entire center uniformly. But if the center is artificially divided into two by section of these anastomoses, each half acts independently, and may be influenced separately by the vagus nerve of its side. Thus the movements of one half of the chest may be entirely suspended by electric stimulation of the central end of the corresponding vagus.

Researches on the same subject, but in another direction, are also communicated by Kronecker (*Archiv f. Phys.*, 1879, p. 592). By introducing a pair of needles, connected with a faradic coil, into the medulla oblongata of rabbits, he tested the irritability of the respiratory center. Each single induction shock would thus induce a series of impulses through the various nerves to the inspiratory muscle. In other words, electric stimulation of the respiratory movements causes inspiratory movements. If the medulla was injured by division from the parts above, to the extent that voluntary breathing became impossible, perfect respiration could be maintained by sending shocks through the medulla in a rhythmic manner. The same purpose could be fulfilled by stimulating the central end of the vagi nerves instead. But the most striking result was that the electric stimulation of the medulla proved entirely negative, when the animal was put into a state of apnoea by vigorous artificial respiration. It seems, therefore, that an electric stimulus does not suffice to call the respiratory center into activity; it needs besides the additional chemical stimulus of imperfectly arterialized blood.

THE RELIABILITY OF CARBOLIZED CATGUT.—Zweifel, in *Centralblatt für Gynäkologie*, reports a case of vesico-vaginal fistula operated upon with the most scrupulous antiseptic precautions. The opening was very small, and required only one suture. Carbolized catgut was used. The patient died of pyæmia, of which no cause could be assigned; Zweifel subsequently examined under the microscope some of the same catgut from the same bottle from which he had taken the suture, and found distributed through its fibres large numbers of bacteria. The lesson to be drawn from this is that microscopic examination should be made of each new bottle of carbolized catgut, and that occasional examinations should be made of the stock in hand, in order that the presence of possible germs may be detected.

DR. PAUL F. MUNDÉ, of New York, will deliver the annual course of lectures at Dartmouth Medical College, Hanover, New Hampshire, next fall. The late Dr. Edmund Randolph Peaslee was formerly Professor of Gynecology in that institution.

TO DETERMINE THE PRESENCE OF MERCURY in urine or animal matter, the *Revue des Sciences Medicales*, January 15, 1880, details the methods of Ludwig, Fürbringer and Mayer. The first treats the urine in the ordinary manner, with hydrochloric acid and potassium chlorate. The filtrate is treated with a powder of zinc or copper, which precipitates an amalgam. Ludwig has thus discovered mercury in the urine after inunctions with ointments containing it, or after injection of the chloride, iodide, cyanide, or phosphate of mercury. Fürbringer adopts methods to destroy all organic accompaniments and sublime the mercury by distillation. He suggests another method depending upon the volatility of mercury at 100° C., and the facility with which its vapors condense when treated with ammoniacal nitrate of silver. These methods are as faulty as the older text-book instructions. For instance, suppose you wished to discover not only whether mercury existed in the urine, but whether it was present as metal or a salt; the methods above would avail nothing. If a soluble form was suspected, filter and test the liquid precisely as for a bichloride; if an insoluble form, test the matter caught by the filter paper; if pure mercury is to be looked for, use the microscope and globules of the metal from one ten-thousandth to one one hundred-thousandth of an inch may be detected by its means. If the color of the urine would mask a reaction, decolorize it by some means which would exert no chemical change upon the salt whose presence is suspected. It has never been demonstrated that mercury exists in urine in solution, or otherwise than as a metal.

A MODIFICATION OF BLOOD TRANSFUSION is described by Prof's Bizzozero and Golgi, which by its scientific handling contrasts pleasantly with some of the vagaries recently produced in this field. Some months ago a suggestion was made by Ponfick to inject the blood into the peritoneal cavity. The necessary experiments, performed upon rabbits, are now related by the authors (*Centralblatt*, N. 51, 1879). They find that this is a safe and harmless procedure. The blood disappears speedily from the abdominal cavity, and does not leave the body with the urine. The increase in the amount of hemoglobin in the blood could be directly measured, and lasted for weeks. The results were the same, though more marked, in animals bled before the transfusion. The originator of this method, Prof. Ponfick, of Breslau, related his own experience in the *Aerztl. Zeitschrift*. In animals he had observed that blood injected into the peritoneal cavity disappeared completely. Moreover, this injection, especially if *defibrinated* blood was used, was tolerated without unfavorable reaction.

Thus encouraged, the procedure was performed upon three patients with decided success. The only unpleasant consequences were temporary slight fever, and slight abdominal tenderness. A glass funnel was connected with a sharp canula by means of rubber tubing; after filling this apparatus with warm defibrinated blood, the canula was thrust through the abdominal wall. Between 200 and 350 grams of blood were used in the individual cases.

THE BLOODLESS METHOD OF OPERATING with the elastic bandage of Esmarch, has, in some cases, a disadvantage. The smaller vessels may remain unligated, and after the removal of the elastic tube the suddenly augmented pressure and consequent dilatation may produce bleeding sufficient to destroy any advantage gained by the small loss of blood during the operation. Its use has also been charged with increased liability to secondary hemorrhage. Prof. König, of Göttingen, claims to be able to prevent both of the foregoing hemorrhages. His plan is as follows: After the cutting has been completed, all the larger arteries that can be found are to be ligated; the part operated upon is then to be held up in a vertical position, then the compressing elastic tube is to be removed. If, for instance, the operation has been on the foot, an assistant is to elevate the leg to the vertical position before the removal of the elastic tube. The subsequent hemorrhage is then very slight. The vertical position is to be maintained during the closing and bandaging of the wound, and also during the removal of the patient to the bed. During the following two or three days a nearly vertical position is to be maintained, either by a suspensory apparatus or an inclined plane—the back of an inverted chair, along which the extremity may be secured on a pillow, is a serviceable device.

AN EXCLUSIVE MILK DIET AS PROPHYLAXIS IN PUERPERAL ECLAMPSIA is advocated in the *Revue de Thérapeutique Médico-Chirurgicale*. The indication for the treatment is found in the constant presence of albuminuria. The quantity of milk per day to be taken is at discretion, to be continued months after the disappearance of the albumen. The average quantity tolerated is three litres per day, persisted in even though there may be great repugnance to the diet. Tarnier cites several successful cases of the kind, and claims that persistence in this regimen invariably caused the pathological condition to disappear, pregnancy terminating without trouble. Gastric derangements arising in the course of this treatment he combated with "ordinary remedies." Measures to prevent constipation or diarrhoea were also taken.

FUNGOSITIES OF THE UMBILICUS IN INFANTS.—

Under this head Dr. Ch. Féré, before the Anatomical Society of Paris, spoke of certain fungous growths of which the umbilicus is the seat in the infant. His remarks are reported in *La Gazette Obstétricale* of January 5, 1880. These excrescences spring from the umbilicus during the four or five days which follow the dropping off of the cord, and grow rapidly. They present various forms; sometimes a cylindrical growth, with a diameter of two or three millimeters, and a length of one centimeter. On account of this cylindrical form they have been thought possessed of an artery and vein. At other times it is a sessile growth, which does not protrude much from the wall of the abdomen. This variety is concealed by the folds of cuticle about the umbilicus, and its presence is only made known by the suppuration which all varieties of this fungoid growth provoke. Sometimes the growth is pediculated, and may become as large as a cranberry. The treatment is simple: The sessile variety is touched with some caustic, like nitrate of silver, which destroys it entirely. The pediculated variety is strangulated with a ligature. No hemorrhage follows, and the growth never returns. Dr. Féré reports two examples: The first was of the cylindrical variety, which was cut off with the scissors and the base cauterized. The second case attracted attention on account of the prolonged suppuration at the umbilicus, which, an examination showed, came from a conical fungus as large as a grain of wheat. The growth was removed by the ligature. The reporter made microscopic examinations of the growths in both these cases. The first he found made up of embryonic tissue, traversed by quite large vessels. The cellules making up the mass were pressed directly against each other, with no intercellular substance. The vessels had no walls proper, so that the blood was in direct contact with the cells. Histologically this tumor is called a globocellular sarcoma, of the small-celled variety. It was covered with epithelium. The growth in the second case was a sarcoma, with more fully developed cells than the first. There were also spots of tissue quite fibrous in their character. The vessels were of smaller caliber than in the first. This tumor, like the first, had a thin covering of epithelium.

To these two cases we may add a third, which has just occurred under our observation. A healthy, large child of seven weeks had had a suppurating umbilicus since the cord came away. An examination revealed a growth as large as a hazel-nut, of a rose-red appearance, and bathed in pus. It had a well-defined pedicle. A ligature was applied and the growth excised. Calomel was sprinkled on the base, and in a few days it was well. There was a suspicion of inherited syphilis in this case.

A SIMPLE PELVIMETER.—Dr. Clevenger suggests the following as an easy method of making pelvic measurements without recourse to expensive instruments: Tie an ordinary cord about eight inches long to the middle finger near its end, pass the free end of the cord through a ring or small rubber band encircling the index finger near the ungual joint; pull the free end of the string till it stretches direct between both fingers brought together; introduce these two digits and rest the nail of the middle finger in the hollow of the sacrum, touching the posterior aspect of the pubes with the front of the index finger, and the string will stretch the length so ascertained; approximate the fingers and withdraw them with the loop of string between; extend the fingers again till the string is tight, then measure across the tips of the fingers, and this measurement will be the antero-posterior pelvic diameter.

WE learn from the Practitioner that picrotoxine, the active principle of *cocculus indicus*, has been used by Dr. William Murrell, M.R.C.P., with great advantage in the treatment of the night sweats of phthisis. The alkaloid is soluble in one hundred and eighty parts of water. As a rule, the doctor says, there is no improvement the first night, but by the third or fourth night the sweating has practically ceased. It returns, however, in from ten to fourteen days, and repetition of the treatment is necessary. The ordinary dose is $\frac{1}{180}$ grain, and the greatest freedom of administration recorded is $\frac{1}{60}$ grain four times a day. Heaven's richest blessings upon the man, woman or child who enlarges our resources for arresting night sweats.

THE Journal of Nervous and Mental Disease for January, 1880, contains its usual quantity of valuable contributions to neurological science. Dr. J. S. Jewell treats of the varieties and causes of neurasthenia. This subject will well repay any practitioner to investigate, and nowhere is the matter as fully treated as in Dr. Jewell's writings. Mason, Amidon, Ott, R. M. Smith, and Henry Banga publish practical investigations of their own upon neurological anatomy and pathology. Dr. H. M. Bannister gives in full the lecture he delivered before the Chicago Philosophical Society on Emotional Insanity in its Medico-Legal Relations. Reviews and bibliographical notices follow, with the periscope, into which are compressed over fifty summarizations of the most important articles appearing in domestic and foreign medical journals, on subjects within the scope of the Journal, which have appeared since last October.

JABORANDI contains from three to seven per cent of pilocarpine. The fact was determined by Gerrard.

BENZOATE OF SODIUM has already gravitated into its proper place in professional esteem. The following is a summary of the most important facts and opinions relating to its use: It is efficient in preventing the development of bacteria in putrescible liquids, and it may with safety be administered by intravenous injection. In Bright's disease it lessens the loss of albumen, but it does not cause its complete disappearance from the urine. It lowers the fever and subdues the local symptoms of erysipelas. Its utility in diphtheria and membranous croup, whether regarded from the standpoint of local or of constitutional operation, is doubtful. The same is true of its use in pulmonary phthisis. It has been employed in almost every conceivable way,—by the stomach, by injection into the bladder, by subcutaneous and intravenous injection, by direct application, by insufflation, and with the atomizer; and it has been used to the extent of an ounce in twenty-four hours.

EXPERIMENTAL investigations of wounds of the lung, liver and kidney, have been made by Tilmanns, in the laboratory of Prof. Cohnheim, in Leipsic. These experiments were made on rabbits, and proved that the bleeding into the pleura and peritoneum did not cause inflammation, the operation and after-treatment were strictly antiseptic. The blood effused into the serous cavities was promptly absorbed in two or three days. The gaping wounds in the organs were filled with clots in process of organization. These results explain the reason why accidental wounds in men sometimes heal up without inflammation, though in a majority of those cases inflammation does occur. If the wound be kept clean from the commencement, and free from septic material, inflammation may not occur, but generally the wounding instruments carry with them minute particles of irritating material, which may be deposited in the wound, and may produce inflammation.

SIMS' SPECULUM ALWAYS AT HAND.—The index and middle fingers of the right hand may be used as a perineal retractor in place of the ordinary Sims' speculum. They may be introduced with the patient in Sims' latero-prone position, the operator standing back of the patient, on the side of the table, in exactly the position of the assistant, who holds the speculum in the ordinary way. In this manner the cervix and vagina may be exposed almost as well as by the speculum. This method of exposing the parts may be of great use when a speculum is needed and not accessible; in the application, for instance, of the tampon in sudden hemorrhage, or in consultations at a distance, when, for reasons not anticipated, it becomes necessary to examine the pelvic organs.

REVIEWS AND NOTICES.

A SYSTEM OF MEDICINE. Edited by J. Russell Reynolds, M.D., F.R.S., Fellow of the Royal College of Physicians of London; Fellow of the Imperial Leopold-Carolina Academy of Germany; Fellow of University College, London; Professor of the Principles and Practice of Medicine in University College; Physician to University College Hospital; Examiner in Medicine to the University of London. With numerous additions and illustrations by Henry Hartshorne, A.M., M.D., Fellow of the College of Physicians of Philadelphia; formerly Professor of Practice of Medicine in Medical Department of Pennsylvania College, and Physician to the Episcopal Hospital of Philadelphia; lately Professor of Hygiene in the University of Pennsylvania, and Professor of Hygiene and Diseases of Children in the Woman's Medical College of Pennsylvania, etc. In Three Volumes. Price per volume, in cloth, \$5; in leather, \$6. Volume I, General Diseases and Diseases of the Nervous System. Philadelphia: Henry C. Lea, 1879. Sold only by subscription. Agents: Lemuel Freeman, 110 Dearborn street, Chicago; and J. H. Chambers & Co., 305 Locust street, St. Louis, Mo.

This great work is already so well and favorably known to the profession that one almost feels called upon to apologize for directing attention to it. There is need of doing this, however, because of the fact that a new edition, specially adapted to the requirements of the American profession, has been prepared, and the first volume of it is now on our table claiming notice. The English edition comprises five volumes of about one thousand pages each. All the subject matter it contains has, by the use of smaller type, been compressed into the three volumes, three thousand pages, of the new edition. But the latter is not a mere reprint. A great variety and abundance of new matter is incorporated in it, and such other changes have been instituted as were found necessary in order to make it a truthful mirror of the *status medicinæ* of to-day. Moreover it has been thoroughly Americanized. By this is meant that due prominence has been given to those diseases which, from the rarity of their occurrence in Europe, are apt to be treated lightly by European writers, but which, from their extensive prevalence in this country, demand a large share of attention from the American practitioner. In carefully examining the volume before us we were very early impressed with the conviction that no one of average discernment, and of reasonable familiarity with medical literature, could advance far in the perusal of its pages without recognizing and fully appreciating the fact of its Anglo-Saxon origin. The entire absence of prolixity, the terse, vigorous and direct modes of expression, are preëminently Anglo-Saxon. Economy of space is one of the most attractive features of the book. Everything that is said is said in the fewest, plainest and most expressive terms possible. There is meaning and utility in every sentence. A single page contains as much information as can be gleaned from several pages of any work covering the same ground with which we are acquainted. There has been no attempt to multiply

words so as to make a large volume or an additional number of volumes. On the contrary, a determination to make it as small as it is possible to make such a vast repository of facts and opinions is apparent in every line. In some respects the book does not seem to be very well proportioned,—subjects commonly regarded as of small importance receiving as great prominence as those requiring extended consideration. A trifling disproportion of this sort does not, of course, lessen the scientific value of the book, and it is doubtful if it would be even noticed by any others than those who, like the reviewer, are morbidly acute at finding fault. Indeed, in a great work of this kind, in one conceived and executed as this has been, the occurrence of inequalities is unavoidable. The work is encyclopædic. It consists of a series of monographs by men of world-wide reputation who are specially qualified to speak on their respective subjects. Each writer has done the best work of which he was capable, but some have exceeded others in minuteness of detail. As regards the soundness and thoroughness of the instruction it is only necessary to say that the names of Sir Henry Thompson, Curling, Brunton, Jenner, Gairdner, Parkes, Aitken, Ringer, Gull, Hutchinson, Fox, Garrod, Hughlings Jackson, and others of equally authoritative voice, stand at the head of the several articles; and as regards the catholicity and the national character of the whole work it is only necessary to add that all the leading schools of Great Britain, including those of Glasgow, Edinburgh and Manchester, the Army Medical School at Netley, the military and naval services, the public health boards, and all the great hospitals and colleges of London, have contributed the services of their best men toward its completion. Such a work must not only be sound and complete in all its essential parts, but it must be as valuable to the possessor as a series of separately bound monographs on the same topics. It is indispensable to every physician, and fully as much so to the irrepressible “busy practitioner” as to the medical teacher.

No supply of common text-books, no matter how bountiful it be, will compensate for the inaccessibility of a great storehouse like this. Text-books are constructed mostly upon the same plan and out of the same materials. There is but little difference between them. Each one contains a summary of the essentials, but in no one is any subject exhaustively treated. A number of such books would, at best, give the possessor command of a comparatively small number of facts. In point of exhaustiveness the volume before us is, in most instances, all that could be desired by the most thoroughgoing student of practical medicine. Errors have crept into it, chiefly orthographical and pharmaceutical, but they are neither numerous nor serious in character. Omissions have occurred, however, which should not have occurred. These consist mostly of failures to notice new medicines and measures of recognized value, and recent developments in pathology. Such omissions

are few in number and ascribable, for the most part, to oversight on the part of the American editor. But, considering the extent and complexity of the task of revising and Americanizing this great work, it is almost inconceivable that no oversights should occur. Prof. Hartshorne has exhibited, in the preparation of the first volume, such discriminating powers and such fidelity to details, that the successful completion of the whole task is a matter of no doubt.

BOOKS AND PAMPHLETS RECEIVED.

J. W. YOUNGE, M.D. Malaria and its Effects.
J. T. JOHNSON, A.M., M.D. Introductory Address delivered at the opening of the Second Course of Lectures of the Washington Training School for Nurses.
U. S. MARINE HOSPITAL SERVICE. Annual Report of the Supervising Surgeon General.
S. O. RICHEY, M.D. A case of reproduction of the Membrana Tympani. From American Journal of the Medical Sciences, January, 1880.
THE ANSWER OF THE NEW YORK NEUROLOGICAL SOCIETY to the report of the Committee on Public Health relative to Lunatic Asylums.
J. FORSYTH MEIGS, M.D. Internal use of Water for the Sick.
THE TRANSACTIONS of the Wisconsin State Medical Society.

TRICHINÆ IN FISHES is noted in Allgemeine Medicinische Centralzeitung, September 3, 1879. In the North-Sea, near Ostende, a pike was recently taken which Dr. Klendenin, of that city, examined by the microscope, and found trichinæ in abundance. It was supposed that a school of pike had eaten of the disjecta membra which were contained in the harbor of Ostende.

ANIMAL tar is procured as a collateral product in the manufacture of boneblack. It is susceptible of division by fractional distillation into several distinct parts,—among which are *picoline* and *pyridine*. These bases are intimately related to quinia, cinchonia and cinchonidia, and it is expected that the careful study of their derivatives will throw considerable light upon the chemistry of the cinchonia alkaloids.

FROM the December number of the Maryland Medical Journal it appears that the Supreme Court of Rhode Island has recently decided that hospital corporations are liable for failure to exert reasonable care in the selection of competent men as internes. A suit for malpractice was instituted against a Rhode Island charity hospital by a patient whose arms had to be amputated on account of the results of long continued application of the tourniquet. The plaintiff claimed that this result was due to the carelessness of the interne, and the court below had ruled that damages were not allowable on the ground that a charity institution should not be held liable for negligence or unskillful treatment. The case was appealed with the result as stated.

ORIGINAL CONTRIBUTIONS.

ACTION OF MERCURY.

Inaugural Thesis read before the Chicago Biological Society, Feb. 4th, 1880.

BY S. V. CLEVENGER, M.D., CHICAGO.

The present condition of the therapeutics of mercury is summed up by Bache in the last U. S. Dispensatory, page 482, in these words: "Of the *modus operandi* of mercury we know nothing, except that it probably acts through the medium of the circulation, and that it possesses a peculiar alterative power over the vital functions, which enables it in many cases to subvert diseased actions."

The general idea pervading the literature of the subject is that some unknown compound is formed by the metal and its salts in the system. Mailhe claimed that the bichloride was formed in the stomach, but failed to establish his theory. Maisch, Bucheim, Oetingen, Winkler and Jeannel dissent from Mailhe's view, and Jeannel suggests the probable formation of the black oxide in the alimentary canal. Maisch denies that this takes place, or that the black oxide occurs in old pill masses. M. Sée published arguments in favor of an albuminate of mercury as the active agent elaborated in the body. Odling thinks the mercury acts as a red blood globule in carrying oxygen to tissues. Had any one of these views been established it would have explained nothing. The mystery would have been no nearer solution. Investigators seem to have been lured away from the evident and fundamental in imagining no connection between the simple, easily-discernible physical properties of mercury and its therapeutical effects, assigning the drug occult, catalytic properties.

Physiologists do not disregard the mechanical properties of water, yet mercury, to a certain extent its congener, seems never to have been considered from this standpoint. Both water and mercury are fluid at common temperatures, both vaporize at all temperatures; both change their specific gravities in passing from solid to fluid and thence to vaporous conditions; both maintain extreme division of their particles, under certain circumstances, and by loss of heat or under compression cohere in drops and fall. The great difference is that mercury is fourteen times heavier than water and has a different solidifying point.

No one disputes the fact that blue mass contains minutely divided mercury, but nowhere have I been able to find any speculations upon the probability that the *mercury* itself thus given was able to accomplish its well-known effects. Histological tissues and a finely divided metal have not been considered as amenable to ordinary mechanical principles. The fact of both being microscopic at once relegated them to mysterious modes of working, though every one acknowledges that a billionth of an inch is no less an entity than is a billion miles. When the metal, in an undivided or uncombined state, is administered, it

rapidly passes through the intestines, with apparently no effect whatever. The cohesive properties of its component particles resist separation. Considerable trituration with an excipient is necessary to reduce the metal to globules; shaken up in water an uneven but pretty fine division may be made, but eventually the fluid metal runs together again, the water opposing only temporary resistance to the metallic confluence. Honey, fats, oils, confections, etc., when mixed with the fine globules, tend to keep the particles apart. I found that albumen and glycerine would effect a separation better than many substances. Finely divided, mercury presents a grayish appearance, passing into black as the division is made extreme, this condition favoring the reverberations of light from particle to particle until no rays are reflected to the eye. The microscope reveals that no change from the metallic state has occurred in reducing the metal to this form. To count the globules in a gram (15.4 gr.) of blue mass I spread it mixed with water over a square decimeter of surface and found an average of 2,000 visible under a very low magnifying power in an area of a square centimeter, which would make 200,000 of these globules in a gram. But under an objective magnifying seventy diameters, more than ten times as many became apparent. Dr. Lester Curtis estimated the size of these globules at from $\frac{1}{8000}$ of an inch to sizes almost immeasurably smaller. In a gram of pill mass there is one-third of a gram of mercury, which would cubically measure $\frac{1}{40}$ of a cubic centimeter. Taking .01 millimeter (Kolliker) as the average diameter of the capillaries, the division of this mass into twenty-five million globules would suffice to reduce all the mercury to capillary sizes. But we have seen that all are not so reduced though many are divided up very much smaller. Carpenter, on p. 138 of his *Physiology*, asserts that metallic mercury, finely divided, can be absorbed by the blood vessels from the alimentary canal.

Let us adopt the simple supposition that these minute globules drop unchanged into the glandular tubules and force their way to the blind extremities: necessarily the expulsion of less heavy contents from these tubules would occur regardless as to whether such contents were morbid or normal. In this manner a deobstruent action would be obtained by as simple and effectual means as were we to drop cannon balls into a large pipe. Peristaltis would assist in passing these same globules onward to other secreting and excreting surfaces, and a few globules of the proper size could thus change the conditions of a large area of minute tubules. After passing the pylorus the simple follicles and duodenal glands could be affected as were the gastric tubules, and by thus cleansing glandular structure restore normal secretion, or, as in some cases, induce hypersecretion. The intestinal villi and lacteals could pass the metal into the circulation, while the portal vein would carry most of it direct to the hepatic parenchyma. Somewhat as the direct aortic connections with the carotid render em-

bolismus most frequent in the left middle cerebral artery, the peculiar relationship of the inferior dental arteries with the external carotids, would facilitate mercury accumulation in the cancellated tissue of the inferior maxillary bone with resulting tenderness and sponginess of gums. The minute globules would find easier ingress to, than egress from, the dependent portion of the lower jaw bone, where they would accumulate to exert a slow but sure disturbing effect upon the gums and incisors, and finally molars. The irritation of the globules upon the peripheral nerves of the salivary glands, together with the deterrent influence of the metal itself, already mentioned, would account for the activity of the sub-lingual sub-maxillary and parotid glands in ptyalism. The question would arise, why should not catharsis continue during ptyalism if all glandular structures were affected; the liver being caused to secrete more bile as the maxillary glands are stimulated to salivary excretion? In the first place the innervation of all glandular structures is not alike, hence they are not comparable in their actions, next ptyalism succeeding catharsis shows that while the liver and intestines evince the first effects of mercurial ingestion, the superior glands are reached later through the circulation. From this it might be reasoned that inunctions of mercury would impress the general system rather than the liver or alimentary canal, and clinically I believe this to have been proven.

"Congestion of the liver, attended with enlargement of the spleen," according to Maisch and Stille, p. 726, "is followed by excessive salivation and even gangrene of the mouth." The hepatic channels being closed in such cases, remoter glands would inevitably receive the greater portion of the metal.

Mercurials load the circulation and emunctories with effete matter because of their deobstruent effects and ability to insinuate their particles among all tissues, separating the morbid or ulcerated portions from the healthy, by the great and universal law of heavy bodies acting in the line of "least resistance." If the bile is improperly diverted or suppressed, it restores it, by opening the channels through which it normally flows; if superabundant from organic obstruction it would regulate its quantity in the same way by affording exit for morbid causes. Its aplastic action is ascribable to the capillary and lymphatic cleansing its passing would produce; the million minute globules pushing open circulatory channels and preventing accumulation, as well as affording means for absorption. Provisional callus and wound healing would be interfered with by the globules breaking up new tissue and interfering with its formation as would any foreign substance. Mercury has been retorted over in considerable quantities from the bones of those who have died from mercurial cachexia, the little particles finding stopping places in the cancellated tissue removed from more active circulatory influences, and, in excess, doubtless dissecting away the periosteum, filling the lacunæ and canaliculi, thus unavoidably producing caries.

Stille and H. C. Wood quote Eld, Buchner, Cantu, Jourda, Andouard, Fourcroy, Gmelin, Byanon, Mayençon, Bergeret, Saikowsky, Oesterlin and Heller as having found mercury, regardless of the form in which it was taken, in the blood, urine, serum and pus of ulcers, in the saliva, fæces, seminal fluid and aborted fœtuses of salivated women. "Indeed in every conceivable secretion and every tissue." In these quotations the metal alone is spoken of as having been found in these tissues and fluids. Very often the word mercury is used in a loose way by authors to include the salts as well. I can imagine that in these cases the usual chemical tests were applied for the base and the radical was undetermined. The microscope would have been effective enough for the discovery of the metal, but nowhere does any use appear to have been made of this instrument in such investigations. As a sample of the many, Bowman, p. 298, says: "When the presence of mercury is suspected in the viscera or other tissues of the body, the part intended for examination should be first cut into thin slices and heated with hydrochloric acid and chlorate of potash, by which means any mercury that may be present will be converted into the bichloride and thus brought into a state of solution." This method will detect mercury but not the elements with which it has been combined. The microscope should first be resorted to. In another connection Brande and Taylor, p. 491, say: "Globules of the $\frac{1}{8000}$ part of an inch in diameter may be easily recognized by the aid of a microscope. Their perfect sphericity, their silvery whiteness by reflected and complete opacity by transmitted light at once identify them as metallic mercury."

The occasional tonic influence of the metal would follow wherever glandular obstruction was superinducing diminution of the red blood corpuscles, as insomnia may be overcome by bromides removing the cause, while no one assigns the bromides a place among hypnotics.

Mercury is not a tonic; but if it increases secretion, removes obstructions and sets the corpuscular manufactories in order as it does the biliary, it induces tonicity as the bromides induce sleep.

But mercury also causes anæmia, which might be expected by persisting in its use, remembering its occlusive powers in closing the minute passages and tubular structures which, in medicinal quantities, removed preëxisting obstructions.

Mercury in larger doses diminishes the number of red blood corpuscles and produces anæmia, emaciation, ulceration, febrile symptoms, with a peculiar "jerking, thready" pulse. Obviously an effect which might be salutary upon the glandular system, wrought by small doses, could become pernicious by over doses, and hæmatisis be seriously interfered with by the vascular stasis induced by mercurial plugging of the arterioles and venioles. Any irritation causing perversion of the hepatic and splenic functions, certainly could only be followed by hæmic degeneration, and I

am inclined to think that the pulse characterizing hydrargyria is due to the irregular but frequent propulsion of blood by *vis a tergo* clearing of the lesser vessels where the metallic globules had for a while backed up the current till forcibly overcome. This brings us to the consideration of the nervous phenomena among its toxic effects.

The poison produces ulceration, neuralgic pains, paralysis agitans, epilepsy, often melancholia, all of which can be produced by thrombus, embolus, passive or active cerebral or spinal congestion, directly brought about by what has just been mentioned.

Take any treatise on nervous diseases, and wherever the words clot, thrombus and embolus occur, substitute mercurial accumulation, and the cause is fully explained, as far as I am able to judge. I will go farther, and say that ischæmic softenings of cerebral tissue, infarctus, mania, aphasia; ay, even hemorrhages, have been caused by mercury, often heretofore ascribed to syphilis; not, of course, denying that this disease has not as often produced the same species of disorders.

Thus accumulation in the terminal twigs of the cerebral cortical arteries would induce paralysis, paresis, softenings, tremors, hemiopia, amblyopia, etc., according to location, and whether the basilar or carotid supply contained the larger quantity of mercury. Should the middle cerebral artery be the meeting place of the molecules, according to subsequent injections of the metal thence, aphasia, hemiplegia or anæsthesia could supervene, singly or together, depending upon whether the gyrus operculum, insula, optic thalamus, corpus striatum, crus or internal capsule had become congested or deprived of blood by this interference.

Bumstead relates a case of epilepsy and general nervous disturbance, in his book, under syphilitic neuroses, which can be better accounted for as mercurialization. The patient (Mr. F.) had been subjected to a long course of mercury, and manifested nervous and mental derangement, quite compatible with the supposition that the mercury was the cause of all the trouble. Bumstead gave him more mercury with iodide of potassium, and was gratified to notice immediate benefit. The iodide alone would have been the better remedy, as iodine unites directly with mercury to form the mercurous iodide. That mercuric iodide is not formed, is evident, from the physiological effects of this active compound not evincing themselves. The less soluble mercurous iodide is carried back into the circulation from the bony or vascular recesses in which the iodine united with the mercury, and decomposing, leaves the mercury to reproduce the same phenomena as when first ingested, with the advantage that the excretory channels have a better chance to eliminate the mercury while circulating than when lying dormant in inaccessible places. This would explain why the iodides re-salivate the mercurialized.

Finding metallic mercury "in every conceivable

tissue and fluid of the body" warrants the supposition that the instances of diabetes, vomiting, gastric and pulmonary irritation following hydrargic exhibition are owing to nerve center irritation mechanical and direct in the floor of the fourth ventricle, or to interference with its blood supply. We might, also, at this stage, expect an augmentation of the salivary flow by irritation of the chorda-tympani nerve, and this may be among the initiatory sialagogic causes. It is a perfectly legitimate view that this irritation may be exerted upon the nerve centers by the heavy globules of the metal, exactly as serous or purulent accumulations may be considered as mechanically productive of nervous and mental derangements, or that mercurial interference with the circulation thereabouts would be followed by such neuroses.

The elimination of mercury from the system seems to be principally through the kidneys; but gold rings, brooches, necklaces, in contact with the person, will become covered with mercury films during a course of hydrargic treatment. Consistently with its vaporizable tendency increasing with heat elevation, warm baths help its passage through the sudoriparous channels, and it is well known that nearer the tropics greater immunity is enjoyed from the effects of large doses. Indeed, the therapeutical dose could be regulated by geographic isothermal lines. The Hot Springs, Arkansas, physicians attribute much of the success in specific ailment treatment there to the climate, which admits of larger doses of the drug. Now, if we take into account the climate and abundance of hot water in that locality, and reasoning that elimination of both mercurials and the specific poison, the evolution of which they assist, is thus greatly facilitated, we have a key to many of the cures effected there, and also to the reappearance of the disorder among those apparently cured who return north, where climatic influences and failure to keep up the hygienic routine, so convenient at the hot springs, had closed the excretory passages upon abated, but still existing, disease.

As to the so-called "specific" reputation of mercury in syphilis treatment, and its *modus operandi*, I might be excused detailing probabilities until the pathology of the complaint is better understood. The disposition of the virus being to centralize itself upon and destroy certain areas, it seems likely that the metal may, by attacking such weakened points, not only break them down, but prevent the static degeneration necessary for ulcerative processes. This, with the antagonism the metal has for occlusion anywhere except what it induces itself in great doses, would suffice as a tentative view until we demonstrate exactly the cause of both the disease and its cure.

The incendiary can do no harm to society while the police are alert and keep him "moving on." Syphilis, though in the blood, may not manifest itself if sufficient globules are chasing it from forming nuclei; but where the fluids of the body are saturated with syphilitic points enough to produce tertiary symptoms,

how futile must any attempt be to restore health by any doses of the drug under consideration. The disease itself is depleting the system at this stage, and mercury but adds to the trouble, having more carious and degenerated spots to work upon.

In short, at this period both syphilis and mercury will fraternize against the body as against a common enemy. Tonics might arrest the cachexia induced by either or both, and in addition the iodides which are known to act both upon this disease and its putative cure should be given.

The author of the toxic effects of mercury in Ziemsen's Cyclopaedia, has made several great mistakes in regard to the chemical and therapeutical properties of the metal, among which are noticable his statement that hydrochloric acid acts upon mercury, and that calomel always salivates young children. Such mistakes in a standard work show that instead of its being a compilation of the best literature, each article is but one physician's opinion on a certain subject, and as such should be valued in proportion to its correctness.

"Prof. Fürbringer, of Jena, (Archiv f. Klin. Med.) has made a large number of hypodermic injections of metallic mercury and states that at the times of the injections they are well borne, but within twenty-four hours inflammatory symptoms set in and frequently result in abscess. If it be simply injected and not divided by subsequent rubbing, no mercury can be found in the urine, but has been obtained as unreduced metal from under the skin at the end of a year and a half. However administered, a slow improvement of the syphilitic symptoms takes place. Metallic mercury is best borne when given in an emulsion; (Hg. 2.00 Mucilage of Acacia and Glycerine $\bar{a}\bar{a}$ 10.00,) one or two injections per week should be made. Fürbringer believes that this plan of treating syphilis by mercurial emulsion injections should be reserved for cases in which inunctions and internal treatment fail or in which it is not advisable to make frequent injections" (St. Petersburg Med. Wochenschrift). I do not believe this method has a particle of advantage over mercurial inunctions well rubbed in. It is cited merely to show the identity of the results of mercurialization, however administered, and the fact that the mercury was not changed after a year and a half contact with subcutaneous tissue. The reason it was not fully absorbed, was that division had not been effected between the particles of the mass.

Dr. Fessenden N. Otis, in a series of clinical lectures on the physiological pathology of syphilis, published in the Boston Medical and Surgical Journal, January and February, 1880, assumes syphilitic inoculation to consist of contact of a degenerate amœboid corpuscle, or disease germ, with the healthy human white blood corpuscle. The lymph spaces and channels convey this poison, multiplied in its course, to the general blood current. He cites Bäumler, in Ziemsen's Cyclopaedia, as virtually supporting the view that the characteristic feature of the

active syphilitic cell is the possession of ability to set up in other cells through contact the same disposition to rapid proliferation. These cells *obstruct* tissues and undergo degeneration and elimination. Prof. Otis demonstrates the syphilitic tubercle in common with all syphilitic sequelæ to be a *deposit of arrested normal material*. He agrees with both Bäumler and Wagner, in stating that "the favorite seats of these accumulations are in the subcutaneous cellular tissue, the skin, in and upon the bones, the liver, the testicles, brain, kidneys, and, especially in children, in the lungs. They occur as infiltrations of microscopic size scattered through the parenchyma of an organ." The causes of the accumulations, Otis claims, are the "*interferences with the lymphatic circulation*, the natural channels through which, according to Rindfleisch, the nutritive material exuded into the tissues in excess of the necessities of growth and repair is returned to the general circulation. *Luxurious new formations, catarrhs and secretions of all kinds, must be produced when the lymph conveyance is hindered.*" Rindfleisch further says: "we will find this position in pathology very frequently confirmed."

Prof. Otis emphasizes this matter of "*obstruction of lymphatic vessels*," and "*hindrances to the lymph conveyance*," throughout his lectures, by italicizing as above, and I advise earnest consideration of the publications mentioned in connection with this paper.

Notwithstanding its aplastic properties, surgeons employ some of its preparations before an operation, where the subject is syphilitic and there is likelihood of the disease complicating or retarding cicatricial growth. From the mechanical standpoint it would seem that the surgeon in such cases chose the lesser evil. The aplasticity of syphilis being progressive and destructive, while that of mercury abates, when the cause is withheld, or is even preferable, to the fibrinous degeneration of syphilis.

The percentage of fibrin would be reduced by the increase of the watery secretions attending glandular activity. In this way mercury would be indirectly as well as directly opposed to plasticity.

BLUE MASS.—Under a three-quarter inch objective, magnifying seventy diameters, I placed the web of a frog's foot, and acquainted myself as thoroughly as possible with the peculiarities of its blood vessels, pigment granules, appearances by reflected and transmitted light, and then gave the frog five grains of blue mass. Twenty-four hours afterward I examined the frog, and was surprised to find little globules of mercury mingled with the mucus it had excreted from its skin. Brushing these off, I placed its feet again under the same lens, and found blood vessels choked with metallic mercury; aneurismal and varicose pouches were distended with mercury, and a great number of the so-called pigment granules had changed to a yellow metallic luster; these spots reflected the light as would mercury, when examined by direct rays. As many as twenty of these lacunæ, or star-shaped bodies could be counted between two toes,

and altogether there were about a hundred on each foot. The close resemblance between these lacunæ as thus injected, and the description in Stricker of the lymphatic sacs in the course of the lymphatics of the frog, led me to believe, at Dr. Lester Curtis' suggestion, that I had observed mercury in the lymphatic channels of the frog. Two little tubules choked with mercury presented a singular phenomenon. Under the power used these tubes appeared blind, but a little globule of unmistakable mercury lay upon the surface of the web at the outer end of one of the tubes. Watching this globule intently for ten minutes, it suddenly increased in size and the tube collapsed, having emptied its mercurial contents outward. The globule thus formed was twice as large as the characteristic blue mass globule, and was easily removed from the web by a camel's hair pencil. The other similar tube was more curved, and at its outer end had two such globules, both of which increased slowly in size, and in half an hour had grown very large at the expense of the tubular contents, the tube disappearing as did the first mentioned. Nowhere could I see anything like foreign particles *circulating* in the blood. The white and red blood corpuscles were distinctly visible, but in one capillary I found a small, dark particle gradually accumulating similar particles near it; these I suspected were minute mercury globules; they accumulated against the current, and the blood passed around them freely; suddenly the down stream end of the mass broke away and apparently washed away in the blood out of sight. This was repeated several times while the mass, in this way, was proceeding up stream. While exchanging objectives for a higher power, the capillary cleared up. In one vein I observed plainly a large globule of mercury lying motionless, while the blood corpuscles beat against it with as little effect as water would have against a great stone in a brook; the corpuscles changed positions to pass it in the vessel, but slid by as rapidly as ever. Some of the exuded mercury globules on the web enabled me to obtain good comparative measurements. Six of these metallic spheres lay on the surface, just over one of the smallest capillaries. The six together measured the diameter of the capillary, and could easily have passed through this blood vessel abreast.

I repeated the experiment on a smaller frog by anointing the chin, axillæ and thorax with Squibb's oleate of mercury, with the same result, only the large sized globules were not so numerous. To a third (large sized) frog I gave ten grains of blue mass, and about as much blue ointment. I kept him in a glass jar, to be sure he did not eject the pellets, and in this case, twenty-four hours after, found the lymphatic sacs engorged, but blood circulation undisturbed. In all the frogs so treated, where unavoidable lacerations of their feet had occurred in manipulating, there oozed from the torn edges minute globules of mercury. The last frog shed his skin in three days after the dose,

but otherwise none of them underwent any apparent change in health or vigor. The skin I think must have afforded the main means of exit for the metal. There is not a fragment, however small, of this discarded cuticle which does not exhibit plainly the metallic globules attached to it in great numbers; many hundred microscopic slides may be mounted with the skin from this frog alone, and every slide will reveal fifty or more globules. In the dissecting room of Bennett Eclectic College of this city, a cadaver was exhibited to the students, the skin of which was so covered with mercury that an ordinary pocket magnifier revealed the globules in countless numbers. Dissecting the frog last mentioned I found the stomach coated with the globules, but ten days having elapsed since the dose, no mercury was found between the intestines and the skin except in the dermis, but very probably in the liver. This organ was apparently choked with sacculations of an opaque substance, which at first Mr. E. B. Stuart (who rendered most indispensable assistance) and I took to be pigment granules, but after slicing by the microtome some sections $\frac{1}{200}$ of an inch thick, and the opacity of these spots persisting, careful consideration leads us to think these opaque spots are aggregations of metallic mercury, held in the hepatic channels. In reflected light the unmistakable glint from mercury globules may be caught. Hoping to discover the courses taken by the metal through the body of the frog, I administered a gram (15.4 gr.) of finely divided mercury, in albumen, to a male frog. In five hours globules appeared on its back. Dissection showed the intestines, renal-portal circulation, heart, kidneys and even the testes, as containing numerous globules of mercury, and the lymphatic passages were beautifully injected with globules much more finely divided. Apparently the lymph channels had chosen the lesser particles, or the metal had undergone further division in absorption into these passages.

CALOMEL.—Adopting Schmidt's analysis of pancreatic juice, as quoted by Dalton, p. 173, (from *Annalen der Chemie und Pharmacie*, 1854, XCII, p. 33,) I found that the materials in the quantities thus given required 21 grams (323 grs.) of the official hydrochloric acid to neutralize 143 grams (2200 grs.) of this artificial pancreatic juice. The proportion being as 1 to 7. One part of hydrochloric acid will neutralize one and one-half parts of potassium hydrate. Then the alkalinity of pancreatic juice is to potassium hydrate as 7 to 1.5, or it requires 4.6 times as much pancreatic juice as caustic potash to neutralize the same weight of muriatic acid. Schmidt's quantities being parts of 1000, I am thus enabled to place the alkilimetry of pancreatic juice at 4.6 parts per 1000, which agrees remarkably with Matteucci's estimate of the lymph and chyle alkalinity being equivalent to 4.3 parts per 1000, in terms of potassium hydrate. (Dalton, p. 193.) Carpenter, p. 124, cites Bidder and Schmidt as having estimated the amount of pancreatic fluid daily secreted by man as

7 ounces, (224 grams.) This is equivalent to 10 grams (154 gr) of potassium hydrate and sufficient to reduce 42 grams (647 gr.) of calomel into black oxide of mercury. At least it is safe to presume that an ordinary dose of calomel is converted into black oxide of mercury as soon as it encounters the pancreatic fluid.

Black oxide of mercury is one of the most unstable compounds; at bodily heat it will yield oxygen and readily be converted into metallic mercury in the presence of deoxidizing substances. Liver sugar, or the glucose formed by pancreatic juice acting upon starchy matter, are quite sufficient to convert the black oxide into metallic mercury, by deprivation of oxygen at bodily temperature.

At this stage we could expect to find calomel acting the same as blue mass, and in general terms this is true, though the liberation of the small amount of chlorine and formation of chlorides of sodium and potassium would of itself accelerate glandular action in the gastro-enteric vicinity. The globules released from calomel average smaller than those in pill mass, though many of the spheres are quite as large.

Parrish's Pharmacy says (p. 290) that "long trituration of calomel increases its power to salivate." This pulverization may cause the liberated globules to be more widely distributed in the alimentary canal and hence prevent any tendency of the lesser globules to form larger ones. In the finer divided state the metal would be able to act more rapidly through the circulation.

At 10 A.M., to a chicken weighing four and a-half pounds, eighteen months old, I gave five grains of calomel. At noon it was sick and very thirsty; 9 P.M. I blew ten grains more calomel into its pharynx, and at 10 o'clock P.M. killed it.

It ejected four ounces of water from its mouth, mixed with the last dose of calomel I had given it, and I recognized black oxide crystals in this liquid which apparently formed above the crop. I did not expect conversion to occur at this point, but it indicates the general tendency of mercurials toward decomposition everywhere in the body instead of a formation of higher salts.

The fæces contained mercury globules. Mercury was distinguishable by the microscope in three out of five parts of the chicken's blood; traces of calomel and black oxide were discernible in the proventriculus and gizzard; a few crystals of the black oxide with a great many globules of the metal were found in the upper intestine, with only metal lower down; the liver contained the metal, while the mesenteries held unmistakably large quantities of the globules, ranging downward in sizes from those usually found in blue mass. The liver globules were small, while those in the mesenteries were large.

Rationally, then, often repeated, small doses of calomel would impress the general system better by allowing reduction and absorption to occur at intervals, insuring complete reduction and absorption, and

wide-spread dissemination through circulatory channels. This is no less true of the mercurials in general.

CORROSIVE SUBLIMATE.—"Mercuric salts are converted into mercurous by sugar," p. 93, Vol. II, Miller's Chemistry. According to this view therapeutical doses of the bichloride would change into calomel in the duodenum, but this calomel must by extremely minute division liberate much finer globules of mercury in its further reduction to black oxide and metal. But I am inclined to think that pancreatic conversion of the bichloride into yellow oxide takes place in the duodenum, and this oxide is absorbed into the circulation, where its conversion may occur slowly into the most minute metallic globules. The fact that toxic doses affect mostly the œsophagus and stomach shows that the extra amount of chlorine operates corrosively until the compound is changed by the alkaline pancreatic juice. The transformation of the yellow oxide would occur in the liver, or, if it remained long enough, in the intestines, by the glucose it would encounter, for the yellow oxide is reduced by glucose as well as is the black oxide, only less rapidly.

The bichloride of mercury is not the only substance that will coagulate albumen, nor does it enter into chemical combination with albumen. Excess of the latter will dissolve the bichloride, showing that the whites of eggs alone cannot be relied upon as an antidote for the bichloride of mercury.

I think a better antidotal method would be to at once give an alkali which would convert most of the bichloride into yellow oxide; then give white of egg, with demulcents, to allay the irritation caused by the corrosive chloride. That this corrosive action is due to the chlorine liberated is evident from no other mercuric salt formed with another radical producing the distress peculiar to large doses of the bichloride. Local applications of this salt are apt to be accompanied by severe effects, because the energetic material does not meet with as strong an alkali as it would in the intestines, and hence is not at once converted into a less active form. The blood, however, is alkaline, and would gradually reduce it, but not before wide-spread, strong effects had been experienced. The antiseptic properties of the bichloride are due wholly to its chlorine, and good results are obtained from using it in dilute lotion to heal ulcers. Doubtless this antiseptic property accompanies the mercury, in this soluble form, into the blood, adding to its efficiency as a remedy in syphilis, particularly where the disease is widely disseminated through the body. The sizes of the globules liberated from the yellow oxide formed from bichloride of mercury are incomparably smaller than those from calomel.

To illustrate its exosmotic power, Carpenter, p. 140, mentions that "the bladder of a racoon was filled with the bichloride of mercury and immersed in a solution of potassium iodide; immediately the outside of the bladder was covered with red mercuric biniodide, and inside yellow protiodide." I expect to prove,

when my experiments are concluded, that corrosive sublimate is reduced partly into metal and yellow oxide in the pancreatic fluid, and part of the yellow oxide is reduced by the glucose of the intestine, the remainder undergoing slow conversion in the liver and blood, until the circulation contains the metallic form only, in a state of excessively minute division.

Chloral and chloroform each contain three atoms of chlorine, and resemble mercuric chloride in condensing albumen, and in having irritating and vesicating properties. Bernard believes that chloroform acts by temporarily coagulating the nerve cells. Albumen is given to antidote chlorinated water. Chloride of lime and chlorine are both irritants; the former causes the same kind of gastro-intestinal inflammation as bichloride of mercury. The metallic deposit is found on articles of gold worn next the person after taking mercury in the form of bichloride, as well as when taken in any other form. One-tenth of a grain of red oxide taken twice a day has been used in syphilis, and resembles the bichloride in not causing salivation readily.

CYANIDE OF MERCURY.—Some syphilologists prefer the cyanide to the bichloride, claiming similar results from its use in the same doses, which would argue that it was the mercury and not the material combined with it which exerted medicinal effects. As might be expected from the liberation of cyanogen in the stomach, none of the epigastric pains said to be caused by the bichloride accompany the use of the cyanide. Cyanide is converted into bichloride with hydrochloric acid. This may occur in the stomach, through the free acid there. One of the characteristics of cyanides is that the weakest acids decompose them with liberation of hydrocyanic acid,—its further reduction would be into yellow oxide, and the metal, as described above, under corrosive sublimate. Knapp's test for diabetic sugar with cyanide of mercury shows that sugar is very active in reducing the metal from this form, and this I believe explains its mode of operating.

GREEN IODIDE OF MERCURY.—Mercurous iodide decomposes by heat in the stomach into mercury globules and mercuric iodide, which is dissolved in the acid fluid of the stomach and further decomposed in the duodenum, precisely as is the bichloride, except with the liberation of iodine instead of chlorine; the yellow oxide from the mercuric salt is further reduced, as is the yellow oxide from the bichloride, into metal. Should the green iodide pass the pylorus unchanged, it would more closely resemble calomel in its effects by resolution into black oxide and mercury, and finally wholly into mercury. The following from the Philadelphia Medical and Surgical Reporter, Vol. XIII, No. 6, p. 127, explains an interesting point in this connection: "It has been frequently observed that the external application of calomel may give rise to severe inflammation of the conjunctiva, if used simultaneously with the administration of iodide of potassium internally. This Dr. Schlæfke explains by

the formation of iodate and iodide of mercury, which in the presence of common salt or iodide of potassium are soluble and act as caustics. He finds that if iodide of potassium be taken twice daily, in half grain doses, its presence can be constantly detected in the conjunctival sac."

RED IODIDE OF MERCURY.—The biniodide loses its iodine in the pancreatic fluid, though a small amount of the combination may pass into the circulation, there to be decomposed by the alkaline blood. It resembles the bichloride in responding to re-agents, and is as poisonous,—another indication that the mercuric combination owes its activity as much to the amounts of the radical liberated in decomposition as to anything else. Topically the effects of concentrated iodine are obtained with mercurialization precisely as a similar application of the bichloride exhibits the localized influence of liberated chlorine.

AMMONIATED MERCURY.—Hydrargyrum Ammoniatum is prepared from the bichloride, and to all intents remains corrosive sublimate, combined with ammonia. Its insolubility renders it ineligible for internal use. Pancreatic fluid acts upon it as upon bichloride.

MERCURY WITH CHALK.—Hydrargyrum cum creta may be considered as milder than blue mass. It does not contain the same percentage of metal, and the chalk does not maintain separation of the globules, which often are visible to the unaided eye. All the metal in the chalk mixtures I examined was in larger spheres than in blue mass, and the latter is much the better medicine.

THE OXIDES OF MERCURY.—The red oxide, as directed to be prepared by the Pharmacopœia, contains nitrate of mercury, and the Dispensatory acknowledges that complete purification of the oxide thus made cannot be accomplished without endangering the compound. In consequence it differs from the yellow oxide, though claimed to be an allotropic deutoxide, by its harshness and crystallization, the yellow being amorphous and much milder; but as it contains twice as much oxygen as the black oxide, just as there is twice as much chlorine in the bichloride, the yellow oxide would, in obedience to this general rule, be expected to act more vigorously than the black oxide. The latter has been given in pill form in place of blue mass or calomel, according to Wood in Dispensatory (page 1257), and found to have identical effects. Dr. Christisen (page 1531, *ibid*) advises the use of the black oxide in ointment in place of the officinal mercurial ointment.

TURPETH MINERAL.—There has been much discussion over the chemical properties and physiological effects of this preparation. After examining the contradictory statements of all accessible authors, I feel justified in calling it a mixture of mercuric oxide and sulphate of mercury, $\text{HgO} + \text{HgSO}_4$. It is an emetic as are other metallic sulphates, and responds to all the tests for the sulphate and oxide of mercury.

ETHIOPS MINERAL.—According to the method of

its preparation this substance is a mixture of sulphur and mercury uncombined, cinnabar and metallic mercury with sulphur, and sometimes a sulphate of mercury.

CINNABAR.—Mercuric or red sulphide differs from the other mercuric preparations in being insoluble and undecomposed by alkaline solutions, consequently most of the dose will pass unchanged from the system, though some mercury must be liberated, for it acts rapidly as a mercurial. When used by fumigation, it liberates sulphurous acid gas and mercurial vapor. "In its native state there is reason to believe it has no action at all," p. 721 National Dispensatory. It may thus be regarded as inert, owing to its insolubility. Anything apparently inconsistent with this view may be accounted for by presuming that other forms of mercury accompany the dose as impurities.

OLEATE OF MERCURY.—With a vague idea that all mercurials depended for their efficacy upon their conversion into an oxide in the body, though no valid reason for, or demonstration of, the theory can be found, in 1872 Dr. Marshall suggested the incorporation of mercuric oxide with oleic acid as an eligible substitute for the common ointment. Any chemist, by inspection of Marshall's process, or even later improvements in modes of manufacture of this preparation, can see that the oxide must be destroyed. In fact a precipitation of visible metal occurs, the weight of which is subtracted, plus its oxygen weight, from the original weight of the mercuric oxide used, and the invisible remainder is assumed to be mercuric oxide in oleic acid. Squibb's label on the bottles containing the oleate reads: "This bottle contains 6 per cent" (or some other percentage, as the case may be) "of mercuric oxide in oleic acid." By decanting off the liquid, further precipitation of the metal, as metal, can be found, and under the microscope beautifully uniform and minute globules of metallic mercury in countless numbers may be seen suspended in the oleic acid. A mechanical mixture of oleic acid and minutely divided mercury I found presented very nearly the same appearance, the globules wanting in uniformity, which I think can be remedied by permitting the mixture to stand some days, allowing the larger globules to precipitate. This settling may prove to be the cause of the minuteness and uniformity of size in Squibb's oleate. So, instead of a mercuric oxide being introduced into the system by inunctions with this preparation, a simple mercurial, reduced to such beforehand, is thus administered and as such it acts. A physician of this city had several applications of the oleate to his axillæ, and soon after, while being dry-cupped, called the attention of Dr. J. S. Jewell (who was treating him for ataxia) to the presence of mercury globules visible in the cupping glass.

The bibromide resembles corrosive sublimate in most respects, and the bromide calomel. Donovan's solution contains the deutoxide and this mention about completes reference to all the compounds used

medicinally. All seem to be reduced directly or indirectly to the metallic state. I am not prepared to say positively that the differences in the therapeutical effects of mercury preparations are ascribable mainly to the differences in sizes of the globules, but it looks very much as though this really was the case. This being admitted, we can expect to obtain an intermediate effect between the mercurous and mercuric doses, should we ever use the extremely divided black precipitated mercury from stannous chloride and corrosive sublimate.

Dr. P. W. Van Peyma, in the February number of the Buffalo Medical and Surgical Journal (p. 290), reviews the points brought forward by Keyes, of New York, in regard to the "tonic treatment" of syphilis. Keyes advocates the use of mercury in small doses long continued. The reviewer claims excellent results from using Keyes' plan of medication, and refers to Dr. J. Shelton Hill's article, in the Maryland Medical Journal for July, as confirmatory of Keyes' observations. Long before becoming acquainted with Keyes' method I had arrived at the conclusion that small doses, about one-sixth of a grain, six times daily, continued for a few months in primary, and lesser doses of finely triturated calomel in subsequent stages of syphilis, would be conducive of excellent results. My idea being that the trituration would ensure the precipitation of finer divided mercury, and the repeated small doses would thoroughly distribute the drug in its best form for exerting widespread deobstruent effects.

In its action as a parasiticide there can be no doubt that the small globules in some cases, when sucked by parasites into their tubules, cause fatal occlusion; and in other cases, by external contact, effectually asphyxiate insects by choking up their stigmata and tracheæ. Mercury absorbed by plants doubtless kills them by filling up the cellular spaces necessary for the passage of nutrient liquids. Hales found that "during the bleeding season a vine can push up its sap in a glass tube to a height of 21 feet above the stump of an amputated branch." Obviously an interference with this process would be fatal to the life of the plant, and no one can doubt that such a force is capable of pushing the suspended globules well up into the branches. The anthelmintic effects of mercury may be the same as its effects upon other invertebrates and some of the lesser vertebrates.

PHYSIOLOGICAL LABORATORY OF THE CHICAGO MEDICAL COLLEGE, CHICAGO, ILL., 1879-80.

WALSH'S RETROSPECT of American Medicine and Surgery is the name of a new quarterly which has just made its appearance, from Washington, D. C. Each number is to contain 150 octavo pages, and it is furnished at two dollars a year. The editors are Drs. Rolf, Walsh and Thomas E. McArdle. The journal receives in its columns only abstracts and reprints from American medical literature. It is difficult to appreciate why the foreign literature is ignored.

THE TREATMENT OF NEURASTHENIA OR CHRONIC NERVOUS EXHAUSTION.

A LECTURE DELIVERED BY J. S. JEWELL, M.D.,
Professor of Nervous and Mental Diseases in Chicago Medical College.

(Continued from last number.)

Having completed my observations on the hygienic management of neurasthenia, I would now call your attention to its medical treatment.

In this lecture it will not be possible to enter upon a description of the treatment adapted to special forms of neurasthenia, such as the dyspeptic, the sexual, or other varieties which might be mentioned, and are actually met with in experience; I wish at present to call your attention to the medical treatment of the uncomplicated disorder.

One of the first things needful to be accomplished by medicine is to diminish reflex excitability of the nervous system, especially of the vaso-motor division of the same. For the comfort of the patient, as well as a means for recovery, it is necessary to put out of sight, as far as can be safely done, undue reflex excitability, especially of the cardiac and vaso-motor nervous apparatuses. Until this is done it will be impossible for the patient to rest as quietly as needful.

As to the medicinal agents which may be employed in these cases I have found nothing that answers the purpose better than the milder bromides, associated with digitalis, in some such combination as the following:

R—Sodii Bromidi,	3 vij;
Acid Bromohyd. (Squibb's Strong)	3 iij;
Tr. Digitalis,	3 iij;
Bismuth Subnit.	3 iv;
Syr. Prun. virg.	3 vij —M.

S. Shake well before using; one or two teaspoonfuls, before or after meals, in water.

In this prescription, as you will observe, the patient gets a small dose of the bromide of sodium, which is rendered more acceptable to the stomach, if not more useful, by the addition of bromohydric acid, especially in dyspeptic neurasthenias. The value of the prescription is enhanced by the addition of bismuth in some cases. If the acid is of the stronger kind it should be given in proportionately smaller doses than the weaker. In such a mixture as I have offered, I have reason to think partial decomposition of the subnitrate of bismuth, occurs so as to afford, probably, an acid bromide of sodium and of bismuth combined.

By the use of this prescription the stomach seems to be favorably acted upon, and the digestion of food, often improved, while in the nervous system reflex excitability, more especially of the vaso-motor nervous system, is rendered steady in its action. Under these circumstances the patient rests better and is relieved of many of the insecure feelings which are among their most distressing symptoms. In some instances I have found it well to combine, in some such mixture as the one I have just prescribed, some stimulant anodyne, such as camphorated tincture of opium in small

doses, or again, some form of pepsin. The pepsin and the bismuth may be omitted, or the bromohydric acid, if it disagrees with the patient, or, finally the acid may be given in some similar mixture without the sodium bromide if it is thought best not to give one of those salts. In general I have directed a dose of some such mixture to be taken before or after meals and, in some cases, also at bed-time. A combination such as has been mentioned, I have found especially useful in that large class of cases which may be grouped under the head of dyspeptic neurasthenias. In these cases it is frequently found necessary to give something which will allay the pain such patients experience.

One of the best means to this end is the use of a reliable extract of cannabis indica, which may be given in doses from a quarter to a half of a grain, twice or thrice daily, either alone or in combination with some more decided anodyne, such as small doses of codeia or at times even of opium, rather than the salts of that drug or other alkaloids, to aid in procuring sleep when it is needful. For this purpose, again, small doses of some alcoholic, like brandy, may be given, or moderate doses of hydrate of chloral, when sleep has been interrupted and is prevented by pain or undue nervous excitability.

As to tonics in these cases it seems to me we have nothing better than large doses of liquid dialysed iron, combined with extract of malt or maltine, to be taken at meals. But if they are to be used with best advantage these remedies must be given in large doses. At times it will be found necessary to give quinine rather than any other bitter tonic, especially if the tongue is clean and the circulation of the patient is feeble, the bowels regular, and there is entire absence of irritative action. It may be given twice daily, from two to five grains at a dose. After it has been taken a few days its use may be profitably suspended. When the effects of its action have passed away its use may be again resumed.

If reflex excitability is not very acute, and the patient is exhausted and relaxed there is indication for the use of strychnine which may be given with satisfaction, dissolved in dilute nitro-muriatic acid, in the proportion of one grain to the ounce of dilute acid. Ten drops of this mixture may be given in two-thirds to one-half a goblet of sweetened water before meals. The effect of strychnia given in this way not only seems to be good, but the action of the acid and strychnina together is most happy in so-called atonic dyspepsias.

In some instances it may be found necessary to use a light alcoholic temporarily, such as Hoff's Malt Extract, or some good wine after meals, such as claret. It is very necessary to keep the bowels regular. This can be done by the use, as already mentioned, of the citrate of magnesia, or by mixture of the combined extracts of cascara and senna, or by other means as they are found necessary.

The objects are to allay reflex excitability to miti-

gate the pains and other disagreeable symptoms, which make so large a part of the unpleasant features in neurasthenia, and to improve general and in particular nerve nutrition, as far as it can be by simple, well-considered means.

I would advise great caution in the use of the bromides; for they certainly exert an unfavorable effect on nutrition if given to any considerable extent. I should consider it a disastrous proceeding in such cases to give them to such a degree as to lead to pronounced bromism. Their action should therefore be diligently watched and the dangers of their use clearly kept in mind.

Such, in outline, is the course it seems to me should be pursued in general neurasthenia, more especially in uncomplicated cases.

But, as you may have already divined, I lay more stress on its hygienic management than upon its medical treatment. The part that can be played by medicines in this disorder is, taken altogether, a subordinate one. Nevertheless, the medical management of neurasthenia is of no small consequence as you will discover when you come to meet with it in actual practice.

Hold in mind clearly what are the main indications of the treatment. Happily they may be plain to the thoughtful practitioner. With these in mind adapt treatment to each case as it comes before you, adding such special therapeutic means as the peculiarities and complications of the case may require.

LACERATION OF THE CERVIX UTERI.

The History and Diagnosis, with two Illustrations.

BY E. C. DUDLEY, M.D.

Former House Surgeon to the Woman's Hospital in the State of New York.

Read before the Tri-State Medical Society November 6, 1879, and reprinted from the advance sheets of the transactions.

The value of the operation for closure of the lacerated cervix will be generally admitted, but widely differing opinions exist; first, respecting the frequency of the lesion; second, respecting its extent when it does occur, and third, respecting its relations to the various erosions and so-called ulcerations of the cervix, of which it is held that this lesion is an important cause. January, 1879, in a paper* before the Chicago Gynecological Society on this subject, I considered the history, diagnosis and treatment; but notwithstanding this and other contributions to the same subject, some of them by eminent gynecologists, I am convinced that the history and diagnosis are even now not well appreciated by many. I shall therefore make use of parts of the paper just mentioned, and of some additional notes made since its publication, together with two drawings, for the purpose of explaining more clearly.

Clinical History.—During labor there must be some

* Published in the Chicago Medical Journal and Examiner March, 1879. The quotations which follow may be accredited to this paper.

point in the cervix above which all the tissues of the uterus contract for the expulsion of the child, and below which they dilate for its exit. "After delivery examination shows, at a point above the normal site of the external os, about on a level with or a little below the plane of utero-vaginal junction, the familiar, hard, unyielding ring vaguely called the os." This cannot be the internal os, since its location is at, or below, the vaginal junction, while the internal os is considerably above. "Neither can it be the external os, since its location is too high; it must, therefore, be between the two, at the very point just mentioned, above which contraction and below which dilatation occur in labor. It is, therefore, a temporary intra-cervical os, below which we must look for all that part of the cervix which during labor was compelled to undergo excessive dilatation, and expect there to find laceration, if it be present. Now without great care this portion of the cervix, which had been so stretched that it cannot immediately recover its contractile power, will be entirely overlooked, but it is always to be felt projecting into the vagina, to the touch not unlike a section of large intestine, and as destitute of contractile power as the sphincter ani muscle after extreme forcible dilatation by the method of Van Buren. It is usually one or two inches in depth, and so deceptive to the touch that the attempt has often been made to remove it by the finger for a clot of blood. After normal labor this slowly recovers its contractile power, and in a few days resumes its normal shape, and the external os is thereby restored." But if laceration occur, nature has all the conditions for concealing the evidence of the lesion so artfully, that to ocular examination the only signs which remain to mark its presence are not uncommonly congestion, enlargement, and the so-called ulcer or erosion of the cervix. The lacerated "diverging flaps," as Emmet says, "are at once forced in the directions offering least resistance, the posterior catching on the recto-vaginal wall and crowding backward into the vaginal cul-de-sac and the anterior forward in the axis of the vagina. The congested tissues about the temporary os, which we have called intra-cervical, meeting no resistance, now roll out, and this eversion, by obstruction to the circulation, causes the tissues to become so gorged with blood that they no longer have sufficient space for their accommodation within the uterus, and the eversion continues until tissue enough for the formation of a spurious cervix has been rolled out into the vagina, and until the temporary intra-cervical os has actually usurped the place of the normal os externum which had been destroyed."

The accompanying figures not only show the manner in which the false cervix is formed, but they explain that its immense size is in a large degree only apparent. Observe that the true vaginal attachment is at X, Z, the true vaginal portion of the cervix therefore must be below these points, but by the reduplication of the vaginal tissue it appears to extend to the apparent

attachment X', Z', so that all below X', Z' appears as the vaginal portion of the cervix.

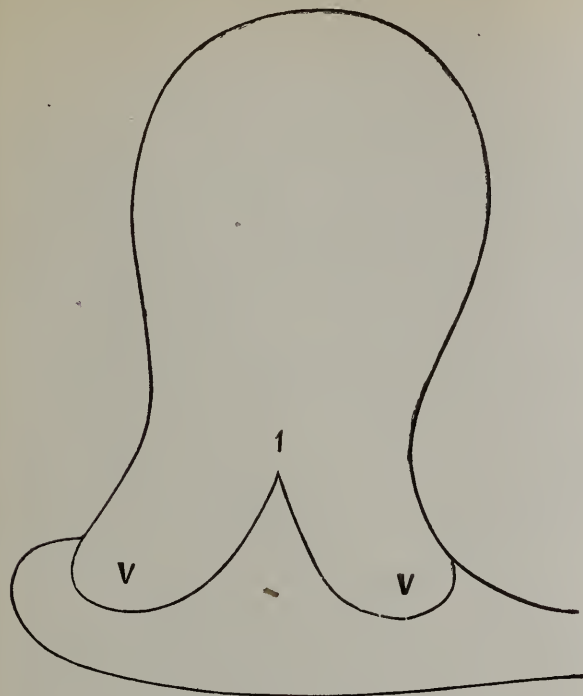


FIGURE 1.—V and V' represent the margins of a recently lacerated cervix. V, the posterior lip, is crowding backward into the posterior cul-de-sac; V', the anterior lip, forward in the axis of the vagina. 1 represents the site of the temporary intra-cervical os at the bottom or angle of the laceration.

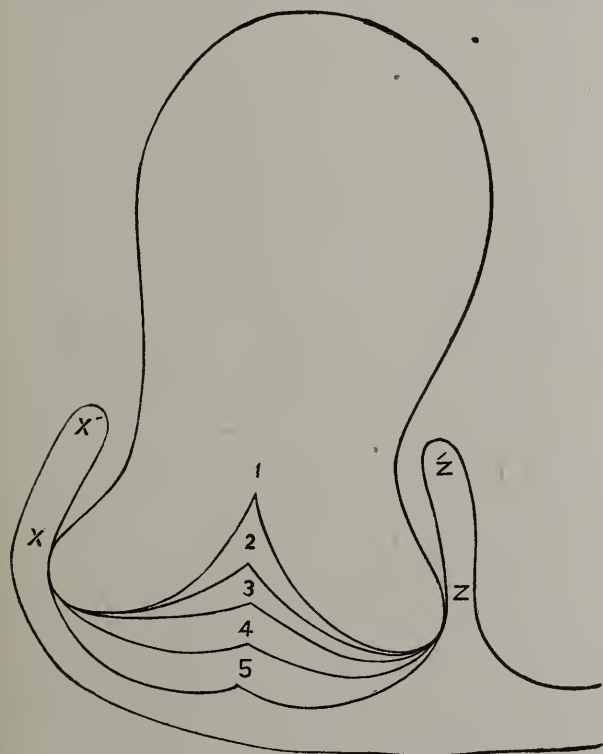


FIGURE 2.—This figure represents the false cervix composed of reflected vaginal tissue and outrolled or everted intra-uterine tissue; this outrolling has taken place as represented by the curved lines forming the angles 1, 2, 3, 4 and 5. These lines indicate the gradual process of eversion. The intra-cervical os, point 1, has been rolled out to point 5, where it appears to be the external os; the vaginal attachment, points X and Z, now appears by a reduplication to be at points X' and Z', so that the cervix appears longer and larger than it actually is.

This reduplication of the vaginal tissues from X, Z to X', Z' also accounts for the difference of opinion so common at the present day respecting the extent of these lacerations. I frequently meet with cases which have been diagnosed as very slight lacerations not

involving the utero-vaginal attachment, but upon examination find that they extend sometimes an inch or more past this attachment into the vaginal tissues on each side. This very common deception is explained by the fact that the reduplicated vaginal tissue may, as indicated in figure 2, extend farther than the laceration, so that however great the laceration may be it does not extend past the apparent vaginal attachment. This deception may be exposed by placing the patient in the knee-chest position, when the uterus will be carried by its own weight toward the diaphragm and the reduplicated vagina will unfold, and the laceration which appeared not to involve the vagina will be seen often to extend a considerable distance into the vagina on both sides.

Immediately after the operation for closure of the lacerated cervix it is noticeable that the immense false cervix has been so much reduced that its size is often smaller than normal. Dr. Emmet, in his recent book, *The Principles and Practice of Gynecology*, declares that he has been unable to account in full for this decrease. He explains it in part by the rolling in of the everted tissue, by the relief from congestion due to hemorrhage, by the restoration of the normal circulation due to readjustment of the flaps, by the loss of tissue in denuding and by the rupture and emptying of the cysts of the mucous follicles so often present. There is, however, an additional and more important reason for this decrease, which in connection with the foregoing may complete the explanation. It is that the reduplication of the vagina is entirely disposed of by the operation, so that the true vaginal attachment is made to appear in its true relation, and so that the apparent attachment, which had contributed so much to the formation of the false cervix, is destroyed. A thorough understanding of this reduplication I am satisfied would clear up much of the dispute respecting the frequency and extent of this lesion.

The delicate intra-cervical membrane accustomed to the mild alkaline secretion of the uterus is now in contact with the irritating acid secretion of the vagina; the uterus, heavy from congestion, now falls to a lower plane in the pelvis, and is exposed to friction and to other mechanical injury; the formation of the so-called ulcer or erosion of the cervix is therefore inevitable, yet the cervix presents no evidence of laceration except the congestion, the enlargement and the so-called ulcer, because the diverging flaps are so modified that all indication of their previous contact has been obliterated.

DIAGNOSIS. This lesion was formerly known by its effects, and accordingly various names were applied to designate their extent and character: "erosion," "granular erosion," "papillary erosion," "ulcer," "follicular ulcer," "cockscorn granulations."

"There is a form of erosion solely dependent upon an irritating discharge from the endometrium or vagina, apt to occur in feeble and badly nourished subjects, and not very uncommon in virgins; a condition analogous to the familiar erosion and excoria-

tion produced by prolonged nasal discharges on the upper lips of children. Such an erosion is readily distinguished from that of laceration by the absence of eversion, absence of marked cervical enlargement, by the presence of a normally shaped os externum, and by physical examination soon to be described. It may be cured by removing the cause. It is generally associated with laceration, and when associated its treatment should be insisted upon as preparatory to the operation."

But when the erosion or so-called ulcer appears on the enlarged and everted cervix, it is always dependent upon laceration. The word fissure ordinarily employed to designate laceration is misleading, and its introduction in this relation was, therefore, unfortunate, since in the majority of cases the fissure which we should naturally expect to find on the lacerated cervix has been obliterated by the everted intra-uterine tissue, which we have said forms a great part of the false cervix. If, therefore, we regard fissure as essential to the diagnosis we shall generally fail to detect the worst cases. Something more than digital and ocular examination, therefore, are required to demonstrate the presence of this everted false cervix. The most reliable means of diagnosis are the two uterine tenacula and the Sims speculum.

"The tenacula are absolutely essential, and I am fully convinced that their importance is not appreciated by many who, neglecting their use, not only fail in diagnosis, but question the accuracy of others who succeed. With these instruments, Emmet first untied the knot and revolutionized almost the entire pathology and treatment of cervical disease. The late Dr. Peaslee, in his remarks on this subject before the N. Y. Co. Med. Soc., referring to the large number of cases of so-called ulceration, says 'that they were not recognized, for none of us knew anything about them till Dr. Emmet told us. It was he who, in a happy moment, brought the anterior and posterior surfaces together with tenacula, and instantly demonstrated that what we all supposed an ulceration was nothing more or less than a laceration.'"

The following is quoted from the history of Dr. Emmet's first case, November 1862. A typical case of so-called "ulceration." "The uterus was some four inches in depth, and an erosion extended about two inches in diameter over an enormous cervix. With great care this erosion had been healed several times, by maintaining the recumbent position for a sufficient length of time, but a relapse to the former condition recurred in each instance shortly after beginning to exercise by walking. I had almost despaired of being able to offer her any permanent relief, and attributed my want of success to the condition of her general health. While making a digital examination one day, I was puzzled to account for the greater width of the cervix in comparison to that of the body beyond, a condition I had for the first time appreciated. I placed her on the left side, and with Sims speculum brought the cervix in view. I drew the

posterior lips forward toward me with a tenaculum, but with no special purpose, when I was surprised to observe that it had decreased to nearly half its previous size. On lifting up the anterior lip with a tenaculum, in the other hand, so as to bring the two portions in approximation, the outline of a cervix presented, of nearly a normal size. The difficulty was at once apparent, for the parts had rolled back within the uterine canal, and a deep lateral fissure became evident, which extended on each side entirely through the cervix and beyond the vaginal junction. On separating the flaps and forcing them back to their former position, I saw the tissues gradually roll out, and the cervix again present its previous appearance. There could then be detected no appearance of laceration, and with the reduplication of vaginal tissue over the sides of the uterus, as I have already described, the cervix presented a normal length above its apparent junction with the vagina. The remedy at once suggested itself; the operation was performed with the aid of my assistant."

The Sims speculum is also very important, as the ordinary bivalve puts the everted tissues on the stretch and prevents the approximation by the tenacula, and the ordinary cylindrical speculum does not afford sufficient room.

But the conveniences for using the tenacula and the Sims speculum are not at the disposal of every hurried practitioner, and the desirability, therefore, of a more ready means of diagnosis is manifest. Fortunately we have the means, and they have already been indicated. Simply translate the words ulceration or erosion with enlarged and everted cervix (*mark you the enlargement and eversion must be present*) into laceration of the cervix, and the diagnosis will be correct in every case. In this false cervix we have an explanation of the cause of many cases of subinvolution. I have repeatedly observed rapid and entire relief from the evils attendant upon subinvolution to follow the operation for closure of the cervix. As already explained, this enlargement and eversion of the cervix was formerly supposed to be the result of hypertrophy, but since it has been demonstrated by the uterine tenacula that this everted tissue may be rolled back within the uterus whence it came, and that the cervix may thus be made to assume its normal size, hypertrophy of the cervix is rarely encountered. The word as applied to the cervix has almost disappeared from my case books.

Although the province of this paper is more specially the history and diagnosis, I shall, in closing, allude briefly to Emmet's operation versus the old methods of treating so-called ulceration with enlargement. The unsatisfactory results of the former methods of long continued topical applications to the uterus are proverbial. Patients have been passed on from one doctor to another only to undergo the same routine, exposure and application once or twice a week, sometimes improving, but often relapsing again into the same old condition of chronic "ulcera-

tion." The moral influence on the patient of all the exposure which long continued local treatment necessitates cannot be other than pernicious, if indeed this moral influence be not productive of more evil than the disease itself. Fortunately we have a mild,* prompt and efficient substitute for much of this local treatment in the operation for closure of the lacerated cervix, to which the name Trachelorrhaphy has been given. Its indication is the presence of that which in former times would have been diagnosed ulceration of the womb, with enlargement of the cervix; in other words, the presence of the false cervix. The operation is of course liable to abuse. It may be performed contrary to the indications, but very soon it will take its place among the most satisfactory of modern surgical procedures. It is my opinion that if this operation were followed by none of the good results so confidently claimed it would be a justifiable procedure, inasmuch as it causes those tissues which have been the object of so much violent and fruitless treatment to be removed from the field of the speculum and from the approach of the porte caustique.

* At the Woman's Hospital, Emmet and others almost invariably use ether in this operation, but it is generally unnecessary. Of the fifteen operations in my own practice since July, 1879, anaesthesia has been dispensed with in twelve, and the patients did not complain of the pain from the operation as much as of the cramped position and the pressure of the speculum.

CORRESPONDENCE.

THE TRANSACTIONS OF THE ILLINOIS STATE MEDICAL SOCIETY FOR 1879.

MOUNT VESUVIUS, Feb. 10, 1880.

The man who has had the hardihood to wade through the conventional volume of the transactions of a State Medical Society, generally lays it aside with an impression such as he would necessarily receive had he examined every individual particle of a cargo of sawdust in order that he might have the satisfaction of being certain that the cargo did not contain a pearl. If the last volume of the transactions of the Illinois State Medical Society were deprived of a very small part of its contents, and were then bisected with the purpose of publishing one half and of consigning the other half to oblivion, it would be impossible to say which half should be published. It exhibits, as usual in such transactions, little evidence of original or useful work.

The President's address is, however, entertaining and suggestive. It discusses several questions of state importance, including the Medical Practice Act, the utility of the State Board of Health and the importance of its functions, and the need of modifying the laws governing the commitment of the insane. The vexed question of medical education also receives its meed of attention. The views advanced on it agree so well with those expressed by the Committee on Medical Education, that, in order to avoid useless repetition, we will defer considering them till we arrive at the subject of the committee's report.

The paper on "The Sanitation of Small Cities," by the Jacksonville veteran, Dr. Prince, is very brief, but doubtless very instructive also. Its character is such, however, as to make it more appropriate for the consideration of a body of engineers than for a body of medical practitioners.

The "Report on Surgery" is systematic, comprehensive, and in the highest degree creditable to the committee. The chairman, Dr. John E. Owens, presents, by way of introduction, a judiciously prepared résumé of the important surgical events of the past year, and an account of important innovations.

The "Report on Obstetrics" is exceedingly meagre, but it embodies some interesting facts and assumptions. The essayist reports two or three instances of the successful employment of hot water injections in the treatment of uterine hemorrhages; four cases of protracted gestation; and one supposed case of ante-partum hour-glass contraction of the uterus. In the latter case, labor having been inexplicably delayed, the attendant introduced his hand far into the uterus in search of the cause. He discovered "a stricture of the fundus at the junction of the lower and middle thirds which grasped the neck of the child, leaving the head in the lower, and the body, extremities and placenta in the upper cavity thus formed. Failing to deliver with forceps . . . it was resolved to perform craniotomy and podalic version." This was accordingly done, and the mother was tenderly laid away with her mutilated babe four days afterward. Who says that "meddlesome midwifery is bad"? The absence of any statement as to whether ergot had been administered may be accepted as evidence that possibly a "small dose" might have been given. It is probable that the author of this report means body, when he says "fundus"; but if he does mean body he has made a mistake. See the paper of Dr. John Bartlett, of Chicago, on the anatomy of the cervix before, during and after labor: Chicago Medical Journal, October, 1873. Dr. Booth supplements this "Report on Obstetrics" by a few common-place objections to the use of chloroform in instrumental delivery.

Dr. Sarah Hackett Stevenson, furnishes a readable paper on "The Physiology and Pathology of the Sympathetic Nervous System." It is not as exhaustive and explicit as the author is capable of making it, and on this account is criticized in the discussion by Dr. J. S. Jewell. In the main, however, the prominent facts and modern views relating to the subject are well presented. The essay constitutes a part of the report on practical medicine, the remainder of which consists chiefly of contributions from practitioners residing in different parts of the state relative to the rate of prevalence in their respective districts of particular forms of disease. The report is graced by a beautiful map of Menard county and supplemented with an unimportant paper on diphtheria.

The next chapter of the transactions is, from every point of view, extraordinary. It is the report on

Gynecology. It consists of an essay, eleven pages long, on the operation for the cure of cervical lacerations, of which the author seems to think a great deal. It is written, apparently, for the benefit of the ignorant doctor, who may have cases requiring operation, but for reasons is not inclined to operate himself. This report is not entirely free from a certain sublime assumption of authority. It appears to have had a paralyzing effect, since no member of the society had the temerity, at the time it was read, to say a word by way of comment. The pronoun "I" occurs forty times, and the references to "myself" and "my clinic" are numerous. The author records a perfect cure the very, very first time he tried in every one of over twenty cases. Then, striking a tangent, he declares that in consultation he delivered, in a few minutes, with a pair of forceps, twenty-five years old, a lady whom three physicians had previously tried to deliver and failed. Then the essayist, with the naïveté so characteristic of the successful practitioner of Pine Ridge, declares that the same patient came subsequently under his care. The author introduces the sutures differently from Emmet,—longitudinally, instead of transversely. He claims, what is seemingly impossible, that his way is easier. He employs an excellent diagram to illustrate the points of difference. A similar diagram may be found in the New York Medical Journal, January, 1878, but as our friend makes no acknowledgment of indebtedness, it may be inferred that the figure which he cut at the meeting of the society was original. All that is said on the subject of cervical laceration could easily have been condensed into one or two pages. The other nine or ten superfluous pages should have been devoted to a consideration of other subjects, which have recently occupied the attention of gynecologists.

A very mild essay on "Trichiasis" had almost escaped attention. It is fortunately rescued from insignificance by the fact that the essay on "Chloral Hydrate and Bromide of Ammonium in Obstetric Practice," which immediately follows it, is a trifle milder.

The reports on Ophthalmology and Otology, though separate, are from the same pen, that of Dr. S. J. Jones. They are voluminous and comprehensive, and contain many facts of interest and importance which are not generally known, but which, unfortunately, are surrounded and smothered in a halo of commonplace generalities.

And now comes the "Report on Medical Education." It is signed by E. Ingals, David Prince, and R. G. Bogue. It consists of the usual aimless and harmless buncombe. There is plenty of language in it,—grandiloquent rhetoric that has no special reference to the subject, and was not intended to have any; the usual manifestations of dismay over the low standard of the colleges; the usual innuendo against one institution, and the usual sly compliment for another; the usual congratulations on the progress

that has been made, and the usual expressions of hope that the progress may continue; the usual statistics showing that we have three times as many doctors to the square inch as any other people in the world, and the usual expressions of regret that the disproportion is steadily growing; the usual philosophical explanations of *why* the profession is overcrowded, and *why* the colleges are still multiplying, and *why* the standard of requirement is low; the usual coy suggestions,—that are taken just as they are intended,—as to how this might be done, and that ought to be done, and the other ought not to be done; the usual judicious titillation of vanity; the usual intensity of yearning for the requirement of preliminary examinations, for more extended curricula, for lengthened and graded courses of instruction, and for more rigid examinations; and, finally, the usual disinclination to take a single step, and the usual evasion of the other issue. The "Report" is the usual annual yell for reform. It does not lead any one into coöperating with any of the institutions that are actually engaged in solving the problem, and it is not intended to. It is meant in good part, and taken in good part. No harm is done. Meantime the society, the orators included, keep right on as usual, sending their students to colleges that do *not* require preliminary examinations; that have *not* extended their curricula; that have *not* instituted graded and lengthened courses of instruction; that do *not* refuse matriculation to any one of the male sex who has money, and that do *not* refuse graduation to any matriculate who pays his way and attends lectures the required length of time. We have often wondered why some sturdy country doctor did not kick over the traces sometimes, and, rising above the college influence that dominates and restrains the Society, try to put an end to this tiresome twaddle about "reform," and force the orators to an actual vote. Although no such gladiator has yet appeared, it will do no harm to indulge the hope that there is at least one doctor in the state who has strength of conviction enough to introduce a resolution similar to the one adopted by the S. E. Missouri Medical Society, at its meeting last November, and insist upon its adoption. The resolution referred to is this: "That no member of this Association receive any student unless such student first pledge himself not to enter any medical college in the United States, except one requiring a preliminary examination and a three years' course of graded instruction."

Such a resolution, if adopted, and honestly sustained, would do more in two years toward raising the plane of medical education, than has ever yet been done, or ever can be done, by the well-framed platitudes of orthodox "reports." An attempt to introduce a resolution of this kind would, however, be apt to occasion such a rattling of dry bones, orators included, as has not been heard in the Society for many a day.

A prescription that does not abound in technical

inaccuracies is rarely seen in the transactions of the Illinois State Medical Society. The general appearance of the volume is creditable to the printer.

Now, Mr. Editor, let me protest against this sort of medical literature. Other State Societies are not faultless. My object, however, has been not so much to show that neighboring states do well, as, if possible, to make our own state do better.

CLINICAL REPORTS.

Mercy Hospital Surgical Clinic, by Prof. E. Andrews.

REPORTED BY MR. E. A. ANDREWS,

This patient presents an example of a misfortune which occasionally follows amputation. The sacrifice of his limb was necessitated by extensive caries of the tibia, and a point was chosen for the amputation just below the knee joint. Following the operation incessant spasmodic contractions of the muscles of the stump occurred, and these were associated with persistent neuralgic pains. The flaps became so much swollen as to necessitate the removal of the sutures. When the sutures were removed a large quantity of putrid, and presumably acrid, serum escaped. The patient did fairly after this, the stump healing readily excepting at these fistulous openings, from which the pus is escaping. When I explore the remaining portion of the tibia, by way of the fistulous openings, I find that it too has become extensively carious, so that I quite despair of arresting the destructive process below the knee joint. Re-amputation is therefore necessary, and I prefer in this case to operate at the lower third of the thigh rather than at the knee joint, notwithstanding the greater mortality which attends the former proceeding. The cure of caries may be effected usually by removing the diseased portion of the bone and establishing free drainage. The reasons for its continued spread in this case I do not know. You observe that in preparing for the operation I do not apply the Esmarch bandage from the extremity of the stump upward, but instead use the apparatus as a tourniquet just above the point of intended amputation. The reason of this is that I desire to avoid the possibility of forcing upward into the current of the circulation any coagula that may exist in the inflamed veins of the diseased portion of the stump. Transfixing the limb I make the lower flap as long as the condition of the parts will allow. The tissue of this flap is more extensively indurated than was supposed, so that it is necessary to make the flap a little shorter than is really desirable. The upper flap, which you see is composed of healthy tissue, will be correspondingly lengthened. You will please notice that, as I saw through the bone, the periosteum separates from it. As it is very important that the carious process be not reestablished, I will divide the bone higher up, at a point where it presents no suspicion of impaired vitality. After checking the hemorrhage completely, and washing the

parts with a two per cent solution of carbolic acid, I close the flaps with sutures and adhesive straps, and cover the stump with cotton batting saturated with carbolized oil, of the strength of one part to twelve.

Some surgeons prefer the longer anterior, and some the longer posterior flap. Choose that method of procedure which will leave the patient the greatest length of healthy limb. The death-rate of amputations increases in direct ratio with the approach of the site of operation to the trunk. Were you to witness an operation like this in Paris, either in hospital or private practice, you would see no attempt made at closing the flaps. This practice has been arrived at from the frequency with which pyæmic and septicæmic complications occur in the French capital. For twenty-four hours after an amputation a quantity of more or less acrid serum is effused, distending the parts and impairing their vitality. This in most instances is absorbed, and it causes no appreciable damage; but cases which no one can predetermine do now and then occur in which the serum not only prevents union by first intention, but through putrefactive changes becomes the source of putrid infection. It is to obviate perils of this kind that the flaps are left open by the Parisian surgeons. In America, however, the population being less dense than it is in Europe, and the sanitary conditions better, the practice of closing the wound is almost universal; nor does experience tend to discredit the practice. The efficient use of drainage tubes will secure for you all the advantages of the open flap method. Some surgeons prefer the lateral flap operation, as it is supposed to afford better facilities for drainage. Antiseptic measures are indispensable. Cleanse the parts frequently and thoroughly with carbolized solutions, and cover the stump with such efficient carbolized dressings as shall prevent the access of acrid poisons or septogenous matter to the raw surface of the flaps.

Mercy Hospital Surgical Clinic, by Prof. E. Andrews.

REPORTED BY MR. JAMES LARKIN.

Case I.—*Carotid Aneurism.*—This patient is of robust appearance; his age is thirty-nine years. In March last, while carrying a heavy burden upstairs, he felt the sudden giving way of something in the right side of the neck, and noticed at once a small, soft pulsating tumor in the posterior superior triangle. The tumor has steadily increased in size, so that at the date of the patient's admission to the hospital the circumferential measurement of the neck over the point of greatest projection was eighteen and three-fourths inches. The case is one of carotid aneurism. The treatment has consisted of intermittent compression by relays of assistants and a clamp devised for the purpose; the free use of arterial sedatives and iodide of potassium, low diet, and repeated venesections. To-day there is no perceptible reduction in the size of the tumor, and I resort to the employment of electricity in the hope of causing coagu-

lation of its contents. This is a powerful thirty-six cell battery, the electrical current proceeding directly from the cells. By using these needles as electrodes, five cells will cause coagulation of the albumen of an egg. For various reasons, however, I prefer using these metallic plates, which, as you see, are of about the size of a silver quarter dollar. I place these electrodes on opposite sides of the tumor, the negative one over the point at which I desire coagulation to occur. Beginning with one cell I increase the number gradually until I reach the limits of the patient's endurance. Thus now, when six cells are in operation, the patient complains of pain. I shall continue the use of this current for forty-five minutes, hoping thereby to make a decidedly beneficial impression upon the dangerous condition of the patient.

Note.—The employment of electricity was attended with encouraging results, but the patient left the hospital before the remedy had received a fair trial.

Case II.—This little patient is only nine days old. It is brought to me for the correction of deformities of the right hand and both feet. You see that the hand is web-fingered, the middle, ring and little fingers being united from the first phalangeal articulation outward. Back of the point indicated, however, you see that a probe may be readily inserted between the fingers. There is a talipes varus of the right foot, which has been skillfully dressed by a competent surgeon, and which, if the dressing be kept in place, will undoubtedly be corrected. The left foot and leg presents the most striking and curious abnormality of any of the parts referred to. This abnormality consists of an almost complete intra-uterine amputation of the leg at the point of junction of the lower with the middle third. You see at this point a deep annular constriction, reaching down to the very bones, and above, another constricted ring which is less deep. The foot is swollen and disfigured almost beyond recognition. The injury has been occasioned by the tightening of the umbilical cord around the limb.

Having etherized the patient we will first give attention to the hand. I insert a bistoury between the fingers and above the point of union, and cut outward. The fingers will be dressed separately with carbolyzed cosmoline. In the case of the left leg, amputation is unfortunately unavoidable. Having applied a few turns of the elastic bandage above, I will operate at the upper point of constriction. The bones are easily divided with forceps, you see, and the flaps are sufficiently long to cover them well. I will now ligate these two vessels that are disposed to bleed, and dress the stump with carbolyzed cosmoline and bandages. It will be necessary to give sufficient paregoric during the night to secure rest.

Case III.—About a week ago this baby, who is only a year old, fell, the left side of the chest striking against a chair. Soon after the injury, a swelling as large as a hen's egg appeared in the axilla. It is a purplish, soft, fluctuating and painful tumor, and there is no pulsation in it. It is an abscess. In this

region care must be taken not to confound an aneurism with an abscess. A free incision gives escape to a quantity of pus. The mother will apply a poultice to the part for a few days, keeping the opening free, so that the healing process will proceed from the bottom of the cavity.

IN THE ITALIAN MEDICAL GAZETTE, R. Rudolph reports eucalyptus as a specific for acute coryza, and declares that chewing the twigs and swallowing saliva secreted will result in rapid relief. His experience includes experiments upon his patients and upon himself. It is probable that the fluid extract would be equally efficacious.

BROMIDE OF POTASSIUM in solution, one ounce to a pint of water, used externally, will almost invariably allay the irritation of urticaria simplex. This has been the experience of Dr. E. C. Dudley, of Chicago, who has prescribed it frequently and seldom been disappointed in its results. It appears to act as a local sedative to the vaso-motor nerves of the skin.

VIDAL has recently laid down the rule that in visceral disorders the special tender points are usually as follows: In ulcer of the stomach the tender point is over the spinous process of the sixth dorsal vertebra, and in liver disorder it is over the fourth. In several cases of perityphlitis he found a tender point at the junction of the second and third dorsal vertebræ.

OFFICIAL LIST of Changes of Stations and Duties of Officers of the Medical Department United States Army, from February 1, 1880, to February 15, 1880.

- Taylor, M. K., captain and assistant surgeon. To repair to Washington, D. C., and settle his accounts with the Treasury Dept. On completion of this duty rejoin his proper station. S. O. 30, A. G. O., February 7, 1880.
- De Hanne, J. V., captain and assistant surgeon. Granted leave of absence until further orders on account of sickness, to take effect February 1, 1880. S. O. 26, A. G. O., February 3, 1880.
- McElderry, H., captain and assistant surgeon. Relieved from duty in Department of the East, to proceed on or before March 1, 1880, to Fort Omaha, Neb., and report in person to Commanding General Department of the Platte for assignment to duty. S. O. 29, A. G. O., February 6, 1880.
- Byrne, C. B., captain and assistant surgeon. The leave of absence granted him Dec. 20, 1879, from A. G. O., extended four months. S. O. 27, A. G. O., February 4, 1880.
- Hoff, J. V. R., captain and assistant surgeon. To report in person to Commanding General Department of the East for assignment to duty at Fort Monroe, Va. S. O. 29, c. s., A. G. O.
- Hall, Wm. R., lieutenant and assistant surgeon. The leave of absence granted him December 5, 1879, from Helgins, Department of the Columbia, is extended three months. S. O. 32, A. G. O., February 10, 1880.
- Appel, D. M., 1st lieutenant and assistant surgeon. So much of the order of December 29, 1879, as relieved him from duty in Department of the Missouri, is revoked. He will report in person to Commanding General Department of the Missouri for assignment to duty. S. O. 32, c. s., A. G. O.
- Cunningham, T. A., 1st lieutenant and assistant surgeon. Granted leave of absence for one month with permission to apply for one month extension. S. O. 11, Department of Dakota, January 26, 1880.

Chicago Medical Gazette.

PUBLISHED ON THE 5TH AND 20TH OF EACH MONTH.

OFFICE OF PUBLICATION, 70 MONROE STREET.

TERMS, \$2 A YEAR, IN ADVANCE.

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Editorials under the heads of the special departments may generally be accredited as indicated above.

VOLUME I.

CHICAGO, MARCH 5, 1880.

NUMBER 5.

THE ABUSE OF MEDICAL CHARITIES.—The communication of Drs. Hatfield and Park on this subject, published in the present number, is worthy of special consideration. We have recently seen a man of considerable pecuniary means, in a neighboring city, who made his boasts that he had availed himself of the services of a distinguished professor of surgery in this city, who had gratuitously performed for him a surgical operation before the class. This man also congratulated himself upon having saved the fifty dollars which his own family physician had intended to charge for the same operation. This case illustrates many. As long as individuals requiring treatment are willing to receive it gratuitously at the hands of distinguished professors rather than pay their family physicians for their services, so long will the rank and file of the profession be deprived of a considerable amount of business to which, in the nature of things, they are entitled, unless, through some influence, these same professors can be made to understand that self-interest requires them to refuse gratuitous services to all who are not properly entitled to them. But the excess of medical colleges, the consequent scarcity of clinical material and the capability of the clinic for stimulating the vanity and adding to the glory of the operator, all contribute to make it in the interest of distinguished teachers to bestow their favors upon the undeserving. The dependence of eminent surgeons, who occupy positions in our medical schools, upon consultations which come to them from other physicians, places it in the power of the profession at large to exert a controlling influence in this important matter. The subject is one which the county societies, or even the State Society, may profitably consider. Let a resolution be introduced, something like the following: Resolved, That no member of this Society

will call in consultation any physician or surgeon who is known to give gratuitous treatment for clinical purposes to undeserving patients. Such a resolution, if carried out, would, in some measure, remedy the evil.

SPONTANEOUS DILATATION OF THE VIRGIN UTERUS WITH HEMORRHAGE.—Under this title J. Matthews Duncan, in the January number of the Obstetrical Journal of Great Britain, describes a condition of the uterus which, if before observed, has never been recorded. The relaxation of the tissue of the uterus, with corresponding dilatation of the organ incident to disease, occurs not rarely, with or without hemorrhage; but instances of this kind are essentially unlike those to which attention is now drawn. In the latter the uterus is, so far as can be elicited, perfectly healthy; no growth is found within the organ, and no foreign body. Two cases are reported: The first, under the care of Dr. Duncan, was an unmarried sister attached to one of the medical wards in an infirmary. She was pallid, and was thought to be near the menopause. The genitals were those of a virgin. She was seized with a flooding like an abortion, and which was sufficient to produce great anæmia. The os and cervical canal were so widely opened that the finger could be passed into the uterine cavity; the latter was dilated so that its dimensions were equal to those of a hen's egg. Under appropriate treatment the patient recovered. The second case occurred under the observation of Dr. Pirie, of Dundee: A young lady nineteen years old, in good health until she became a victim of purpura. The following is a summary of the history of her hemorrhages: In April an alarming attack of nose-bleed; August, profuse catamenia; purpurial spots are found. September, gums readily bleed;

alarming hemorrhage the first day of the menstrual flow. November, the catamenia continued two weeks; the os and cervix uteri were open, and clots were expelled. December, profuse catamenia, arrested by intra-uterine injection of perchloride of iron two parts, and water one part. January, profuse menstrual flow. April, profuse menstruation and epistaxis; iron injection repeated and nostril plugged. Dr. Duncan now visited her and found the cervical cavity dilated sufficient to admit the finger. The cavity of the uterus was filled with a soft clot; a perfect cast of the uterine cavity was expelled, some two and a half inches long, which had fibrinous cords corresponding to the Fallopian tubes, nearly four inches in length. Despite all remedial measures the patient died, and although no autopsy was permitted, the frequent examinations made during life failed to reveal any disease of the uterus. The writer offers nothing concerning the etiology of this variety of uterine dilatation.

THE HYPODERMIC USE OF MORPHINE.—A recent number of the Medical and Surgical Reporter contains a somewhat extraordinary communication on the "Hypodermic Use of Morphia." The communication was undoubtedly written by a "busy practitioner." It is extraordinary in that it exhibits either sublime ignorance of, or withering contempt for, the hard, commanding facts which are before the profession. The author has opinions of his own. Until 1870 he had never given more than a quarter of a grain of morphia, hypodermically, for a dose; but in the year indicated he happily became satisfied that the prevalent opinions as to the danger of the practice were erroneous, and he learned to employ the medicine with greater freedom. He now gives half a grain as an ordinary dose, and, under circumstances of very severe suffering, he does not hesitate to administer a full grain. He refers incidentally, and with a charming show of appreciation, to "the apparent delirium so common a result of partly-subdued pain," seemingly for the purpose of assuring the apprehensive reader that he does not fear apparent delirium. He has known convulsions to follow the hypodermic use of morphia, but, fortunately, he does not fear them, either. In 1870, the year of his enlightenment, he saw a man die shortly after the injection of half a grain, but, pshaw! he soon became satisfied that the morphia had nothing whatever to do with it. *He* isn't afraid. We have no doubt that the author is a gentleman of great natural ability, and extensive reading and experience, but we submit that he has exposed himself to unfavorable criticism in that he has not taken sufficient pains to be frank and explicit in impressing the correct status of affairs on the impressible reader.

He should have apologized in a foot-note for the blunder of writing the article at all, and he should have warned his readers that a fourth of a grain of morphia, hypodermically, has, in over a score of recorded cases, and probably in five times that number of unrecorded ones, destroyed life with almost lightning-like rapidity. He should have admitted that even a sixth of a grain has had a similarly fatal effect. He should have admitted, too, while claiming that morphia had nothing whatever to do with the sudden demise of his own patient, that persons of moderate intelligence, like Bartholow, Stillè and H. C. Wood, would probably regard it as another unfortunate example of unintentional homicide. Lastly, the editor of the Medical and Surgical Reporter ought to apologize to the profession for publishing the communication without censuring its author and advising him to throw his little syringe away.

ASPIRATION FOR ABSCESS OF THE LIVER.—At the last meeting of the Medical Society of Virginia, Dr. J. Marion Sims read a paper on abscess of the liver (Virginia Medical Monthly for January, 1880). In it he gives an account of the operation by Dr. W. A. Hammond, of New York, on Dr. E. S. Gaillard, the well known medical journalist, who was relieved of a very uncomfortable series of symptoms by the aspiration of an abscess in the right lobe of the liver, which Dr. Hammond had diagnosed from brain symptoms only. He also relates the subsequent history of another case operated upon by Dr. Hammond. The patient recovered health, went abroad, and having a recurrence of his former symptoms, by advice of Dr. Sims, consulted Dr. Brown-Séguard, who said positively that he had never had abscess of the liver. Subsequently a physician in the south of France wrote to Dr. Hammond for information, and having the history confirmed, repeated the aspiration with the same satisfactory results as before. Dr. Hammond has aspirated the liver for abscess twenty-six times in the last two years, and has drawn off pus in fifteen of these with good results to the patient's health. In the other eleven cases no bad effects followed the operation. He was, it is believed, the first to introduce this operation for the relief of the special hypochondriacal and cerebral symptoms often met with in this country and rebellious to all other treatment, and with the success that has followed it in his hands its employment is a notable advance in therapeutics. His method of diagnosis is to place the patient on the back, put the points of the index and middle fingers of the left hand between the eighth and ninth ribs, a little in advance of the line falling from the middle of the axilla; then by gentle percussion at a point about two inches above the umbilicus, a little

to the right of the median line, fluctuation may be detected by the fingers of the left hand. His method of operating on the right lobe of the liver is to pass the aspirator needle, antisepticated with carbolic oil, through the intercostal space between the eighth and ninth ribs, and about an inch forward of a line dropped from the axilla to the pelvis, pulling up the skin beforehand so as to make a valvular opening. It may penetrate the liver one and a half to two and a half inches; if no pus is met with at the latter depth, it may be concluded that no abscess exists. Abscesses, it is claimed, rarely occur elsewhere than in the right lobe.

AN ANATOMICAL MENTAL INDEX.—The next number of the Journal of Nervous and Mental Disease will contain a lengthy article by Dr. S. V. Clevenger, of which the following is a synopsis: There is a remarkable relativity in position of the sulcus Rolando to the frontal lobes of animals, and its migration toward the occipital lobe in the direct ratio of intelligence in the animal. Dividing the brain antero-posteriorly into ten parts along the fissura longitudinalis, the paracentral gyrus at the summit of the fissure of Rolando will be found placed about six parts from the frontal extremity, four removes from the occipital in the average human brain; in cases of defective mentality the formula will be found as low as 5.5. In the intelligent chimpanzee, 4.6. The division in the brain of the "slow, solitary and peaceful" orang of the genus *Simia*, 3.7; while the cerebrum of the "relatively brutal and degraded" baboon may be expressed by the figures 2.8. There is no sulcus Rolando in the carnivoran brain, but the crucial sulcus corresponds to it, and it will be found that the frontal terminus of this crucial sulcus cuts off the mentality of these animals in the same progression. This is not an accidental but a contingent anatomical fact. Ferrier has demonstrated the existence of what he calls the "inhibitory" motor part of the frontal lobes, and precisely as this psycho-motor division is developed the Rolandic sulcus must be made to encroach upon the posterior sensory region.

A REVOLUTION IN THERAPEUTICS.—Attention is called to the original communication in the last number, on the action of mercury. Previous to the appearance of this paper, the therapeutic action of this drug had been mainly conjectural. The attempt had been made to explain it on the basis of vague hypotheses. It seems now to have been demonstrated that the salts of mercury, whatever be their form of administration, have a tendency, by reason of their unstable composition, toward decomposition and never toward recombination, and that all of the salts

are reduced to the form of metallic globules either before or soon after entering the circulation, except when administered in toxic doses. It seems clearly to have been demonstrated that the drug does its work, not in virtue of any catalytic or chemical property, but in virtue, rather, of the mechanical property of these microscopic globules of the metal. It is shown that these globules favor the elimination of morbid material by pushing it through the lesser tubules of the body in which it may have accumulated, and thence into the various excretory channels. In a word, the therapeutic action of mercury is mechanical. This paper will be found to have been based, not upon conjecture or hypotheses, but upon actual demonstration in the chemical and physiological laboratory and under the microscope. The discoveries brought out in this paper may prove important to histology and pathology, and especially to the pathology of syphilis. The conclusions of this paper, unless disproved, must necessarily lift the subject out of its obscurity and place it upon a definite scientific basis.

LUNACY REFORM.—The account of a recent inquest at New York city, as given in the New York correspondence of the Boston Medical and Surgical Journal, furnishes an interesting supplement to some recent literature on asylum reform, previously noticed in this journal, and a commentary on the actions and professions of at least one of the most active opponents to this reform movement. An inmate of the Female Insane Asylum on Blackwell's Island had been killed by a fellow patient. The homicide occurred at night in the violent ward of that institution, occupied by about two hundred patients and, at the time, in charge of only one nurse, assisted by three workhouse prisoners. The New York Neurological Society requested the coroner, "in the interests of justice and insane-asylum reform," to be allowed to be represented at the inquest. Dr. A. E. Macdonald, the superintendent, objected to this request being granted, on the ground that the society had no legal standing, and "that its members were at a direct issue with him, being his personal and official enemies." He stated that he had no desire to have anything concealed, that certain abuses were acknowledged to exist, and he was only too willing to have them exposed. They were "the result of years of mismanagement," and he thought it unreasonable to expect him to have corrected them in the short time he had been in charge. Inasmuch as Dr. Macdonald, from the Neurological Society's showing in its reply to the senate report, is one of the most active opponents to their prosecution of asylum abuses, we are rather surprised to find him admitting his side thus completely out of court.

TREATMENT OF SCALDS AND BURNS.—The popular treatment of scalds and burns with various salves, lotions, liniments and ointments is irrational for the doctor, painful for the patient and miserable in its results for both. Before proceeding to declare what the treatment should be, let us classify burns and scalds. I, Those which are characterized simply by a rubefacient condition of the skin, not associated with the blister and involving only the epidermis. II, Those which are characterized by the formation of a blister, or, in other words, by the raising of the epidermis and the collection of serous fluid between it and the derma, but do not involve the corium or destroy the vitality of any of the structure lying beneath the epidermis. III, Those in which the derma is impaired in its vitality by partial destruction of its constituents. The blister may or may not be present. IV, Those in which all the layers, together with a part of the subcutaneous structures, are destroyed. The lesions of the first class always heal without a cicatrix under any treatment, or even without treatment. Lesions of the second class, under the ordinary treatment already alluded to, are exceedingly prone to granulation, to suppuration and to the consequent production of a cicatricial surface. Lesions of the third class, under ordinary management, generally cicatrize. Lesions of the fourth class, under all forms of treatment, invariably heal with cicatricial surface. Notice that healing with the covering of true skin is certain in the first class, probable in the second, possible in the third, impossible in the fourth. The treatment therefore, so far as the formation of the skin-covering and the avoidance of the scar are concerned, has to do only with the second and third classes. Experience has shown that the Lister dressing, scrupulously applied, results in the formation of true skin surface without scar, always in the second class and frequently in the third. It moreover renders the process of healing more rapid and less painful. In the fourth class the Lister dressing, although not competent to reproduce the skin, results in more rapid healing and in the production of the minimum amount of cicatricial tissue. The scar, therefore, would be attended with the minimum tendency to contract. If the lesion involves the subcutaneous tissues the dressings should be removed and replaced under the spray once in a day or two. For the superficial lesions the dressings may be removed less frequently and the spray may be dispensed with, except in hospital practice. The dressing should be strictly antiseptic, should be applied with scrupulous care, and should perfectly exclude the air. It may consist, first, of carbolyzed oiled silk, one layer; second, carbolyzed gauze, four to eight layers, according to the extent of the lesion; third,

carbolyzed mackintosh; fourth, the roller bandage or some other appliance to hold the dressing in place. Under the roller bandage, especially in the cases of children, it is desirable to apply several layers of carbolyzed cotton. This serves as a protection and insures more perfect adaptation of the dressing. The time has come for the profession to abandon its superstitions respecting the miraculous healing properties of salves and ointments. Healing depends upon the ability of those tissues which have not been entirely destroyed to take advantage of the reparative processes of nature. Rational treatment, therefore, has for its object, not to assist the healing, but to let it alone. The Lister dressing is designed to exclude everything which is capable of embarrassing the reparative process.

THE COMMISSIONER OF HEALTH.—The efficiency of the Health Commissioner may be fairly measured by the value which the owners of the large rendering establishments at the Stockyards place upon his scalp. In a late Chicago daily paper it is announced that an attempt is being made to abolish the office of Health Commissioner, and that those interested in the scheme have secretly pledged themselves to make up a purse of \$50,000 for this purpose. It is well known that the Health Commissioner has been in the way of these gentlemen for some time, and that they have labored in vain to depose him. The reason does not appear why certain of the aldermen have been in sympathy with them. We are also informed of a well grounded report that months ago they offered the mayor \$25,000 to displace him and let them name his successor. Moreover, it is said that they have hounded him, through a hired publication, week after week, and failing in this have naturally fallen back upon the aldermen. The better members of the body to which these Stockyard men belong, however, are friendly to the Commissioner, and are prepared to repel the attacks of his enemies.

AN AUTOPSY reported in the St. Louis Globe Democrat, February 17, reads as follows: "It appears that at some time Mr. Hare had swallowed an oat, which, entering the stomach, had entered the appendix, or blind sac, situated at the base of the ascending colon. The oat, after lodging in the appendix, caused ulceration of the organs of the stomach in immediate contact with the appendix. The oat finally worked its way through and perforated the appendix, which, combined with the ulcerations, caused death. The case proves the fact that people cannot be too careful about taking seeds of any kind into the stomach, as one lodging in the appendix would produce the same result."

ABSCCESS OF THE LIVER.—Dr. Hammond's original paper on this subject was published in the *St. Louis Clinical Record*, June, 1878. We reproduce his nine propositions there enunciated:

1. That hepatic abscesses are probably much more common with us than is generally supposed.
2. That they may exist without any local symptoms, or such general disturbance of the system as is commonly regarded as indicating their presence.
3. That they may be associated with hypochondria and other evidences of cerebral disturbance.
4. That they should be opened at the earliest possible moment, and without waiting for adhesions to form between the liver and the abdominal wall.
5. That the proper place for performing the operation of aspiration is in one of the intercostal spaces. This point is strongly insisted upon by Dr. Davis in his memoir.
6. That the operation by aspiration is free from danger. Dr. Davis never saw any ill consequences from it, and Dr. Jiminez, of Mexico, states that of the hundreds of times he has punctured the liver through the intercostal spaces for abscess, he has never once seen the operation followed by peritonitis. In a very admirable paper Dr. Tauszky, of New York, expresses the same opinion.
7. That in all cases of hypochondria or melancholia the liver should be carefully explored, and that, even if no fluctuation be detected, or any other sign of abscess be discovered, aspiration, being a harmless operation, should be performed.
8. That if pus be evacuated the operation may be expected to be followed by a cure of the mental disorder, as well as by the preservation of the life of the patient from the probably fatal consequences of hepatic abscess.
9. That if no abscess be found the patient will at least be no worse off than he was before.

The paper of Dr. J. C. Davis, alluded to above, appeared simultaneously with Dr. Hammond's first publication in the *New York Medical Journal* for June, 1878.

QUININE FOR CHILDREN.—It is probable that a very large proportion of the sulphate of quinine prescribed for the diseases of children is not administered as prescribed. The child objects to it on account of its bitterness, the nurse neglects to give it on account of the child's objection, the doctor does not observe the effects which he had anticipated, and is disappointed. Fortunately, the difficulty may be entirely overcome by the substitution of the neutral tannate of quinine for the sulphate. Five grains of the former equal two grains of the latter. The neutral tannate, moreover, is thought to be not inferior to the sulphate. How-

ever this may be, the absence of difficulty in its administration, and the consequent fact that it will generally be administered according to directions, would compensate for any possible inferiority of this sort as compared with the sulphate. It is tasteless, insoluble in water, and should be given in syrup or jelly. Its adoption entirely obviates all of the usual objections to the administration of quinine for children. It is a matter of surprise that its use is not more nearly universal.

COLD CLIMATES FOR CONSUMPTIVES.—Dr. Talbot Jones, of St. Paul, Minnesota, in the *New York Medical Journal*, September, 1879, presents forcibly the claims of Minnesota in point of climate, altitude, temperature, absence of malarial poisons and comparative dryness of air, as a residence for consumptives. After a discussion of the causes of pulmonary disease, and its relative prevalence in warm, moist and dry climates, he draws the following deductions: No zone enjoys entire immunity from consumption. The popular belief that phthisis is rare in warm and prevalent in cold climates is untrue. The rate of mortality decreases from the sea-shore to a certain elevation. Altitude, owing to the greater purity of the air and its richness in ozone, is favorable to the treatment of consumption. Moisture or dampness of the atmosphere predisposes to the development of the disease, and is hurtful to those already affected. Dryness of air is of decided value. A climate of uniform high temperature, warm and moist, is the most unfavorable possible for consumption. Changes in temperature are not so hurtful as is generally supposed.

ONE of the greatest difficulties to be overcome in the use of litholapaxy instruments is the tendency on the part of the sand drawn from the bladder to return to that viscus with the currents of water injected. This may be prevented by putting in a sieve or screen valve attachment to the tube in the bulb, which valve would drop down and allow water and débris to pass into the bulb, but would close and allow only water to pass back when the bulb was compressed. A short glass tube above the bulb would also be of use in showing the surgeon what was passing to and from the bladder during the operation.

PROFESSOR BAIRD shows what was known as eel fat to have been the ripe ovaries of the eel, and much mystification over the mode of propagation of eels was thus disposed of. Dr. Clevenger, while dissecting some frogs, noted what Rolleston designates as "fatty bodies," and thinks they must be the epididimides of the animal.

THE RELATION OF INSANITY TO UTERINE DISEASE is forcibly illustrated in a paper by Dr. Meachem, of Racine, Wis., in the present number. The dependence of insanity and of other mental disorders upon lesions of the reproductive organs has received much less attention than the importance of the subject demands. Dr. Skene, of Brooklyn, N. Y., before the American Gynecological Society, recently read a valuable paper on the relations of insanity to the diseases of women; abstracted in the American Journal of Obstetrics, October, 1879. The point of Dr. Skene's paper was that probably more cases of insanity may be traced to brain exhaustion produced by prolonged or excessive functional activity of the healthy reproductive organs, than from disease proper of those organs. Observations upon 200 insane women, ranging from seventeen to forty-six years of age, were made with the following results: Insanity and deranged enervation tend toward the suppression of sexual functions. In mild insanity menstruation may continue normal. Excessive menstruation among the insane is generally associated with uterine disease. Clinical observation proves that insanity, by its tendency to the suppression of the functions of the sexual organs, also tends to cure functional diseases of those organs. Insanity does not tend to arrest organic disease of the reproductive organs. Women suffering simply from functional diseases of the sexual organs, therefore, need no attention from the gynecologist after the establishment of the fact that no organic disease exists. It is important to make the clear distinction between insanity dependent upon disease of the sexual organs and mental derangements which exist independently of them. Organic disease of the ovaries, uterus or vagina may be a powerful cause in the production of insanity and in the prevention of its cure, and in this class of diseases the gynecologist may produce brilliant results. Dr. Skene declares his experience that acute affections of the brain and nervous system, wholly due originally to disease of the sexual organs, may be relieved, in most cases, by appropriate treatment of those organs, and that, in general, insanity coexistent with disease of the reproductive organs, may, in greater or less degree, be successfully treated by restoring them to health, and that the improvement will be proportionate to the duration and severity of the insanity. Physical examination of the pelvic organs of insane women is beset with difficulties. Dr. Skene found ether, as an anæsthetic, unsatisfactory; nitrous oxide gas very satisfactory. It may be administered in the usual manner, employing a rubber cup, which fits over the mouth and nose instead of the mouth-piece. Physical signs differ from those of ordinary cases, as follows:

Absence of tenderness generally marked. In cases of amenorrhœa the vagina and cervix are pale and anæmic, as after the menopause. The rectum is generally distended. In ovarian disease the valuable sign of tenderness on pressure is lost. It is probable that malignant diseases of the uterus and the products of former diseases, such as pelvic peritonitis and cellulitis, are relatively more frequent in the insane. Treatment in these cases follows the general principles of ordinary practice. Frequent local treatment, such as electricity, leeching and blistering the uterus, and the hot water douche is difficult. In treating ruptured perineum, Dr. Skene employs silk sutures, and in place of the douche, the marine lint tampon, and fair results have been obtained, although the patients walked about during the process of healing. The management of displacements of the uterus presents the most important difficulty in the treatment of these patients.

HYDROBROMIC ETHER, the new anæsthetic, has been made the subject of careful study by Dr. R. J. Levis, and the results of his observations have been published in the Philadelphia Medical Times, January 17, 1880. The agent is a colorless liquid, of peculiar odor, intermediate between chloroform and ether in density and volatility, and its vapor is neither inflammable nor irritating to the air passages. Anæsthesia is usually induced in two or three minutes, and recovery of consciousness is of equal rapidity. The mode of administration is by inhalation from a covered napkin, and the quantity required varies with the necessities of the case between one drachm and eleven drachms. The preliminary muscular excitement is moderate and transitory, and is attended with slight acceleration of pulse and slight increase in vascular tension. Respiration is not affected beyond the characteristics of ordinary ether narcosis. Nausea and vomiting do not occur often. The pupils dilate when complete anæsthesia is induced, and resume their normal dimensions upon the return of consciousness. They may be taken as the guide. Ordinary caution should be observed in using the agent, although Dr. Levis has never discovered any tendency to the production of syncope.

TYNDALL recommends ordinary cotton as an excellent filter for preventing the passage of bacteria. This comparatively cheap substance should be utilized to plug stationary wash-basins in sleeping-rooms at night and as a guard to the respiratory passages of persons exposed to contagious emanations. If it did no good at least it would be harmless, which is more than can be said for many lauded disinfectants and germ destroyers.

THE TRANSACTIONS OF THE MEDICAL SOCIETY OF VIRGINIA for 1879 is a volume of 152 pages. It opens with the president's address, in which the society is told why it has come together; that the profession has insufficient legal protection against the admission of incompetent and unworthy members. Regret is expressed that the society is so small. The announcement is made that the object of professional association is mutual improvement in knowledge and practice; that Ephraim McDowell was a native of Virginia, and was one of the foremost men of his day; that Dr. Stearns, of Waterford, N. Y., introduced ergot into practice. The president closes by enjoining the fellows to vie with each other in promoting the welfare and happiness of their fellow-men. The president's address appears to have been ground out of the old, old instrument. The instrument was then passed over to the next orator, who set the key to the sentimental tune of "The Reflex Influence on the Physician of the Work of Healing—of the Work upon the Workman." We suppose he meant the effects of doctoring upon the doctor. This address, intended both for the public and for the profession, is not only sentimental, but weak. We are told that the physician's life is one of toil, and that, of all others, it is capable of upholding a character which is most beautiful and symmetrical; that it combines a certain gentleness, founded in love, with that strength which is the product of the very highest sense of obligation. It would be better for medical societies to consider the best way of taking care of sick people, and to leave to the public the question of our beautiful, symmetrical, lovely and strong characters, and of our high sense of obligation. These two orators apparently talked for a long time. The subjects of chemistry, pharmacy, materia medica and therapeutics were then disposed of in eight pages. Obstetrics and the diseases of women and children in three miserable pages. The reporter on practical medicine mentions four or five important subjects, but says very little about them. The subject of hygiene and public health is very well treated by Dr. Samuel K. Jackson, of Norfolk. The questionable superiority of the cautery in epithelioma of the cervix uteri is urged in a paper by Dr. H. P. C. Wilson, of Baltimore. We say questionable, because we once heard one of the most distinguished gynecologists in the world remark that he could speak more feelingly on the subject of the actual cautery in diseases of the cervix than any other man, because he believed that in the course of his practice he had done more harm with it than any other man. A chapter is devoted to the life and character of Dr. James Craik, the friend and physician of George Washington. This would be an excellent contribution to the proceedings of a historical

society. A paper by Dr. J. Marion Sims on abscess of the liver is noticed in another column. Then follows the usual paper on diphtheria, eight pages long, then an unimportant volunteer paper which has the virtue of brevity. The volume closes with the report of the necrological committee and an account of the business proceedings. We would not be understood as having singled out the Society of Virginia for special criticism. Substantially the same objections may be brought against the proceedings of state societies in general, and our own state of Illinois is as bad as any.

PHYSICIANS should pay more attention to the study of physical laws and their relations to physiology and therapeutics. It is not too much to predict that the greatest discoveries of the future in pathology and physiology will occur through a better understanding of the natural sciences and their connection with the bodily functions. Medicine emerged from charlatan mysticism into the empiricism of to-day, and is struggling to free itself from the influence of the dark ages. There is now in Germany a bitter discussion over the propriety of printing the pharmacopœia in German instead of Latin. The ultra-classic element fears that every one will understand it if printed in the vernacular. The physician of the future may be amused over the doctor of the nineteenth century, ignorant of chemistry and of histology, laboring over the genitive case endings for his prescriptions, half the words in which are confessed barbarisms. Medical latin is like the ecclesiastical, and too much deference to its study, when the time may be more usefully employed in scientific directions, will enable future ages to confuse us with the astrologers and with the other pretenders of the earlier centuries.

DR. LYON PLAYFAIR, at a meeting of the British Social Science Association, quoted Michelet's statement that for one thousand years no one in Europe used the bath, and urged that it was no wonder that the epidemics of the middle ages cut off one-fourth of the population; no wonder there was a spotted plague, black death, sweating sickness, dancing mania, mewing mania, biting mania and other terrible epidemics. The emotionalism so much cultivated in those days had more to do with the manias mentioned; and even at this time, were there less abhorrence of water and soap and more rational than emotional training among all classes, death and disease rates would be reduced to a minimum.

THE death of Mr. Soelberg Wells, author of "The Diseases of the Eye and their Treatment," a work extensively known in this country, is announced at Cannes.

HEMORRHAGE AT THE UMBILICUS IN INFANTS occurs once in every three thousand to four thousand cases. If it be arterial or venous, which is exceedingly rare, the bleeding vessel may be ligated by the ordinary method; but generally the hemorrhage is parenchymatous, and the oozing is so profuse that, unless arrested, fatal syncope ensues in twenty-four or thirty-six hours. The usual treatment by bandaging, by pressure, or by the application of styptics, generally fails. A suture entered on one side of the umbilicus, passed underneath the oozing surfaces, brought out at a corresponding point on the other side and tightened, rarely arrests the hemorrhage permanently, since it generally reappears along the line of the suture. A certain, safe and efficient remedy is, however, always at hand. It may be summed up in the three words, *ligature en masse*. The ligature should be applied as follows: Pass a long, slender needle far underneath the bleeding part, entering about one-third of an inch from the margin of the umbilicus on one side and emerging at the corresponding point on the other. Pass another needle in the same manner at right angles to the first. Secure a strong silk ligature underneath the two needles. This will arrest the hemorrhage for a time in all cases, permanently in most. Should hemorrhage recur, the needles may be withdrawn, and again introduced in other directions and the ligature applied as before. This may be repeated until the hemorrhage has permanently subsided.

THE CAUSE OF CATARACT has lately been the topic of various experimental articles. It has usually been supposed that the senile rigidity of the lens is due to a loss of water. That this supposition is true has been proven recently by Deutschmann (*Arch. f. Ophth.*, vol. XXV, p. 213). He removed the lens in its capsule within three hours after death, determined its weight and the amount of water lost in drying. He thus found that up to the age of 40 years there is but little difference in the amount of water contained in the lens. But after this time the lens becomes sensibly dryer. Comparing the opaque lens extracted in its capsule in cataract with the normal tissue of persons of the same age, he found that the cataractous lens contains an excess of water. The aqueous humor, on the other hand, was found to contain an excess of albumen in cataractous eyes. Which is the cause and which is the effect? By placing the lens (in its capsule) into solutions of albumen, Deutschmann obtained only negative results. The injection of albumen into the anterior chamber of living eyes, in animals, had likewise no effect. But on immersing the normal lens in a salt solution, resembling in composition the aqueous humor, it lost, ultimately, its

transparency by imbibition of water, while some albumen had diffused into the artificial aqueous humor. The experiments show that abnormal osmotic currents between the lens and the aqueous humor play an important rôle in the production of cataract.

THE spreading of an eruption of herpes into the interior of the larynx has as yet received no special attention in literature. Dr. R. Meyer, however, mentions (in the *Berlin klin. Wochenschrift*, 1872, No. 41) that he has seen this occurrence several times. In one instance the phlyctenulæ could be seen upon the vocal chords, their presence causing hoarseness, and later aphonia. They disappeared readily upon calomel insufflation. Dr. Meyer points out the possibility of mistaking this harmless eruption for a syphilitic accident. A further communication on the same topic is made by Beregszaszy in the *Wien med. Presse* (1879, No. 44). It is based upon three cases. The vesicles appeared partly at the edge of the epiglottis, partly upon the chords, or the remaining mucous membrane. They commenced as small exudations surrounded by a dark red inflamed areola; in one or two days they became vesicular, and finally burst, leaving behind minute excoriations, which healed readily. The vesicles did not all appear at once. Their presence caused pain in speaking and swallowing, and in one case a feeling of pressure and hoarseness. Diphtheria had been diagnosed at first.

CURE FOR VOMITING OF PREGNANCY.—Dilatation of the cervical canal for the vomiting of pregnancy is now regarded not only an efficient means of treatment, but reasonably safe. The dilatation should not, however, be carried to the interior of the uterine cavity, but should rather be confined to the lower portion of the constricted part of the cervical canal, and even here need not be extensive. It may be accomplished with the index finger, which should be gently carried through the external os with the rotating movement, until one-half of the first phalanx has been introduced. This may be easily accomplished with the multipara, but with the primipara it will generally be necessary to enlarge the os by previous dilatation, until room enough has been gained to admit the finger. The statistics of this method of treatment are not sufficiently large to warrant us in saying that it is wholly unattended with danger of abortion, but from records of several cases, since 1875, it may be said that it is a safe and sure remedy. It was discovered by Copman in 1875, when he dilated for the purpose of producing an abortion for the relief of vomiting, and instead of causing the abortion he cured the vomiting.

ORIGINAL CONTRIBUTIONS.

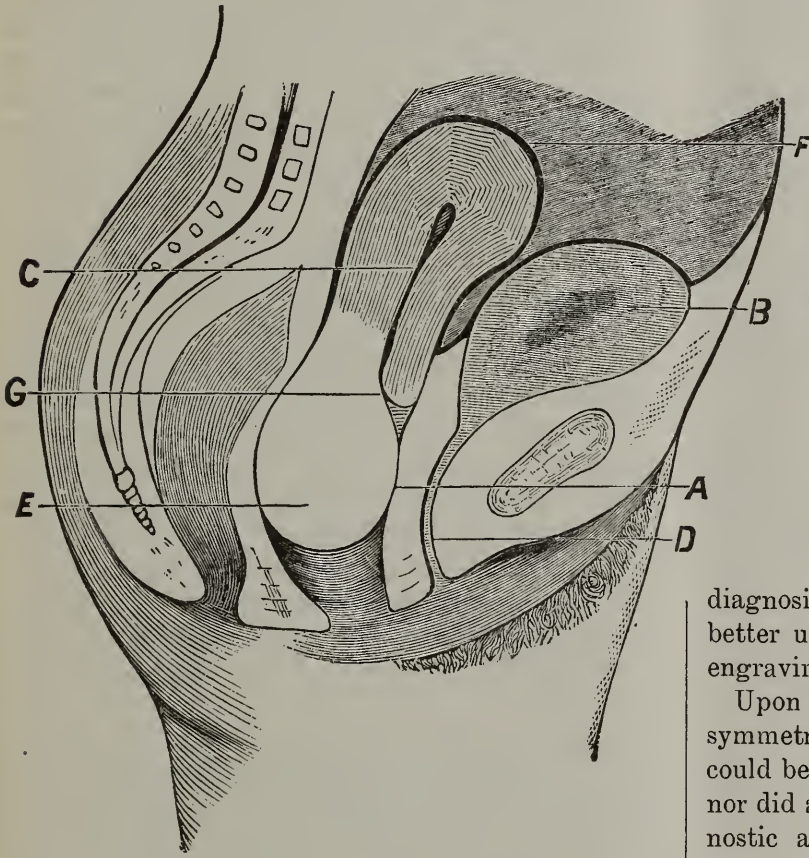
*SUPPOSED INVERSION OF THE UTERUS.**Fibroid Development of Posterior Half of Uterus—
and Vaginal Atresia.*

BY EDWARD W. JENKS, M.D.,

Professor Medical and Surgical Diseases of Women, Chicago
Medical College.

The following case is reported for the reason that it possessed peculiar complications, almost if not quite anomalous in character, in consequence of which a correct diagnosis could not be easily made.

Mrs. S— had been troubled for several years with uterine and pelvic disorders, accompanied by a great variety of symptoms, for which she had received treatment in the meantime at the hands of



A. Site of the adhesion of the tumor to anterior wall of vagina, with the exception of a minute opening only admitting a small-sized probe. B. The bladder. C. Uterine canal, seven inches in depth. D. Elongated urethra, nearly four inches in length. E. Vaginal portion of tumor. F. Fundus uteri. G. Os uteri.

many physicians for very many diseases. She had been informed by one that she had prolapsus uteri, as the womb could be felt low down in the vagina; by another, that she had an ovarian tumor, for it could be distinctly felt through the abdominal walls. She was also informed that she was pregnant, and that that condition alone caused all of her uncomfortable symptoms and the great size of her abdomen. She was told that she had a cancerous tumor of the womb. Another physician treated her for "ulceration" of the womb, a term which, unfortunately for the good name of gynecology, seems to

be made use of by many, who practice medicine, to hide their ignorance of diseases of women, there being no other term, apparently, so frequently used as is the word "ulceration" to explain the occult causes of their various discomforts. She came under the care of Dr. Morgan, a prominent physician of Greenville, Michigan, who referred her to me. Dr. Morgan stated in the letter which Mrs. S. brought that she had quite recently become his patient, and that from her history and the information derived from physical examination he was inclined to the belief that her uterus was inverted. That there were good reasons for such a diagnosis is very plain to be seen. The history of her case is briefly as follows: She is thirty-eight years of age, and has borne several children. Two years prior to consulting

me she had an abortion from accidental causes in the third month of pregnancy, from which time she dates the beginning of her present difficulties. During the past two years she has suffered from menorrhagia, and has had several severe attacks of metrorrhagia. She has been subject to "bearing down" pains, an almost constant hypogastric pain, and irritation within the bladder and about the urethra. She states that she received local treatment of a severe and painful character for the "ulceration." There is good reason for thinking that this treatment consisted of caustic applications in consequence of which adhesions were formed between the inferior portion of the tumor and the vaginal walls, producing almost complete vaginal atresia and making

diagnosis more difficult, a condition which will be better understood by reference to the accompanying engraving.

Upon first examining the case per vaginam, a symmetrical, round-shaped tumor filling the canal could be felt, but I could not discover any os uteri, nor did a rectal examination render any further diagnostic aid, as nothing was discernible except the round vaginal tumor. That the woman menstruated and had also been subject to uterine hemorrhages, and that no opening to the uterus could be discovered, were additional reasons for believing that the diagnosis of inverted uterus was correct. On the other hand, the tumor did not, by ocular examination, present the appearance of an inverted uterus, while the tumor in the hypogastrium which was felt as part of, or connected with, the vaginal tumor, indicated some pathological condition altogether different from what one would expect to find with uterine inversion alone. The first examination being unsatisfactory, I decided to etherize her for the purpose of making out a complete diagnosis; to accomplish which, if necessary, I also proposed making rectal exploration with my hand after the method of Simon. When etherized and in the dorsal position there could be felt in the vagina only a regular spher-

ical tumor nearly filling the canal; no os uteri could be discovered by touch or sight by myself or the several physicians present. The bladder could not be felt per vaginam, as the urethra was elongated, the bladder occupying a position much higher in the pelvis than normal. By putting the patient in the semi-prone position, after considerable time spent in ascertaining if the vagina were really a closed canal, I found in the region corresponding to the neck of the bladder a small orifice, barely large enough to admit an ordinary uterine probe, which proved to be an opening in the otherwise adherent vagina, leading to the os uteri. I enlarged this opening with my finger until I reached the os uteri. The anterior uterine lip could be then felt distinctly. A strong vulsellum was hooked to the dependent portion of the tumor, and traction was made by an assistant, but this did not move the tumor from its place or afford me more room for manipulation. I could barely squeeze the tips of two fingers between the tumor and the pubes. I passed one finger as a guide into this space and then carried a uterine probe into the canal of the uterus a distance of seven inches beyond the anterior lip. The direction of the probe was upward and forward, and after it had reached the fundus uteri an impulse given to its handle could be distinctly felt in the hypogastrium. A reference to the accompanying cut will better serve to describe the peculiarities of this case.

The examination cleared up all doubts as to the woman's trouble, it being very plain that it was a case of uterine fibroma, assuming rather an unusual form. The fibroid development was principally in the posterior half of the uterus; the anterior part of the uterus, although considerably enlarged in its supra-vaginal portion, seemed to be rather a hyperplasia than a fibroid development. The immobility of the entire tumor was doubtless due to adhesion which nature so frequently seems to provide in cases of large uterine fibroids, or which in other words, seem to be almost inevitable, for it is well known to gynecologists that pelvic peritonitis is of common occurrence in connection with large pelvic tumors. The vaginal adhesion, as before stated, was doubtless due to some irritating or caustic applications. The treatment of the case was palliative and expectant. The patient was sent home to wait for future developments, with the understanding that the time might possibly arrive when an operation, the only thing that could be done, would be justifiable.

DR. EDWARD W. JENKS, who has removed to Chicago since the printing of the last directory, requests correspondents to address him at his residence, 820 Indiana avenue, or at his office, 70 Monroe street.

PROF. J. H. HOLLISTER, of the Chicago Medical College, has been appointed to the medical board of the County Hospital, vice Dr. Quine, resigned.

THE ABUSES OF MEDICAL CHARITIES.*

BY M. P. HATFIELD, A.M., M.D.,

Professor of Chemistry, Chicago Medical College, and

ROSWELL PARK, A.M., M.D.,

Demonstrator and Assistant to Chair of Anatomy, Chicago Medical College.

Read by Dr. Park before the Chicago Biological Society Jan. 7, 1880, and the Chicago Medical Society Feb. 2, 1880.

Dispensaries are by no means unmixed blessings, as all of us who have labored in them know. They may be founded never so wisely, may "supply wants long felt," be richly endowed and conscientiously attended by able physicians, and yet become a positive injury to all concerned, unless by hard work and careful watchfulness we can transform our benevolence into true beneficence to the poor. No one doubts that the motives which caused the founding of our dispensaries were the very best; but for a long time back the conviction has been growing upon the writers that the ways and means of administering medical charity, and of properly limiting it, were susceptible of great improvement. The rapid increase of patients has rendered it impossible for the attending physicians to properly examine the claims of each applicant, and the consequence is that, little by little, the scrutiny is relaxed and the dispensary doors finally become like those of gospel grace.

Dispensaries are organized and conducted for two purposes. First, to do good to the deserving sick poor, whom we have always with us, and second, to furnish clinical material for instruction. Both of these are noble and commendable. But when it has got to such a pass that every so-called "college" and every fanciful "school of practice," and every clique of impecunious doctors, no matter how few, or even a "ring" of students can organize or conduct a dispensary, it is very doubtful whether the first purpose is attained.

No one can practice in a large city like this without being painfully aware that there are hundreds, if not thousands, of sick in great need of properly administered professional attention. These it should be our aim to reach; and were our efforts confined to this class exclusively the fraternity would probably act as an unit in helping along the good work. But when our brethren of the cloth see one patient after another, who used to pay reasonable fees, dropping out of their hands and appealing to dispensaries, where they are received kindly if not cordially, small wonder that they conceive a dislike to the system and its disciples, and refuse to help it or them in any way.

And, sad to say, too often the attending surgeon or physician compounds with his conscience and treats gratuitously the case that offers him a chance to demonstrate to himself or to his class his ability to deal with it, or to exhibit the beautiful skill with which he diagnoses and handles a new or rare disease. And

* The substance of this paper having been presented in various communications to the South Side Dispensary Club, the writers were requested to prepare a more formal paper and bring it to the notice of the profession throughout the country.

thus the matter runs in a vicious circle and the trouble is ever aggravated.

There are enough deserving poor in this city to justify the establishment of at least one dispensary on each side of the river. But there are four "Colleges" (to speak courteously of some of them) on the South Side, each with its dispensary, each hard pressed for means to supply medicines, each finding it difficult to secure an adequate professional staff, all vying in their efforts to provide interesting clinics, and worst of all, one or two making no scruple to pirate upon the practice of outside physicians by offers of gratuitous advice and medicine of their peculiar kind. Out upon such "*charity*"! Better that any institution, in such need of clinical material that it must thus prostitute itself, were swept into the lake.

Dr. Hatfield, who has given no small amount of time in efforts to right this abuse, devoted the dispensary hours of each day throughout several weeks to keeping a careful record of patients applying at the South Side Dispensary, and investigating their circumstances; even calling at their alleged homes to avoid doing injustice. Let us take the first twenty-four on his list of those applying as new patients, and this is what we find. Allowing the widest charity to influence our decision, not more than half the number were in any way entitled to relief; while of the other half one roundly abused him and the dispensary for his and their efforts, eight lied unconscionably either as to their residence, condition or circumstances, two kept coal-yards and owned houses, two owned boarding houses, and one owned a livery stable. Yet of the twenty-four but three could be induced to pay for their medicine at some drug-store.

In short, probably not more than one-half of our dispensary patients are entitled to any relief, and of these at least one-half ought to pay a reasonable sum for their medicines.

Verily the profession is becoming demoralized. The ignorant or poor patient first becomes the victim of some quack who deliberately robs him; his money gone, he then turns to the dispensary, and if turned away or snubbed, his last act is to go to the nearest druggist, who includes his paltry fee in the price of the medicine. There are not half a dozen druggists in this city who do not prescribe over their counters, and between these, the quacks, and the dispensaries, the upholders of the ethical code suffer as does a merchant vessel in a sea infested by pirates.

But—avoiding digression—the closest investigation is always needed to prevent injustice to the really deserving and to ferret out the deceivers. Appearances are frequently deceptive; the honest poor will often put on their best clothes to go to the doctor, while the undeserving as often study an appearance calculated to mislead.

This abuse of medical charity is by no means confined to our city. It has grown to so great an evil in New York city that the State Board of Charities has been compelled to appoint a committee to investigate

the subject. The readers of the "Medical Record" (1878, p. 131,) are already conversant with their report. In Boston they are having the same trouble. News comes from Dublin and Berlin to the same effect. And in London it is not an uncommon thing for patients to collect after dispensary hours and "pool" their medicines, or trade bottles or auction them off to the highest bidder!

Too much charity is as often a curse as a blessing. As the proportion of illegitimate children always increases with the number and capacity of the institutions provided for their début, so medical paupers will increase and multiply with the number of hospitals and dispensaries which induce them to become such.

And as any one so disposed can start a dispensary, so medical men are very largely responsible for the abuses of which they complain so loudly, and, in fact, have complained ever since Constantine and Antoninus Pius established dispensary service.

Let us examine yet a little further the relations and causes of these abuses. The experience of those who best know, is that a comparatively very small proportion of native born population will so lower themselves in the estimation of themselves and others as to seek such relief unless absolutely forced to; and these usually are reasonably grateful for services rendered. But we are, alas! overrun with a degraded foreign population—whose reasons or motives for leaving their native lands do not require explanation—lost to all feelings of independence and pride of race, filthy and lazy, shiftless and indolent, ignorant and superstitious to a melancholy degree, always ungrateful, addicted to the worst forms of intemperance—that all-impoverishing vice—who have no higher aim than to extort from the world about them the best possible living under the circumstances. Instead of hesitating to accept a charity, they not only expect it but scheme and plot to get it. It would be a revelation to some of our parlor philanthropists could they realize to what an extent this is the case. How to deal with this class is a social problem of no small magnitude.

Of one hundred consecutive applicants at the South Side Dispensary sixty-eight were Irish or Irish-American, ten were native born, seven were Germans, three English and the remaining twelve were representatives of various foreign nationalities. To simply dole out medicines to these people is to begin at the wrong end of the list of remedial measures. But if they could only be made to care for themselves very few would be absolutely paupers.

It is not to be expected that the poor laborer can pay the same fee that the well-to-do merchant does. But there can be no doubt that at least half of those who now attend our dispensaries can pay something to the doctor; and there are but few who enjoy such a lucrative practice that they can afford to disregard the aggregate of a number of small fees.

But this is not all. The young physician, who would

gladly settle in a large city and enjoy the many benefits it offers, is positively unable to do so unless he has sufficient capital to carry him over a few years of waiting and hard working, and why? Because he sees patient after patient who is able to pay a dollar, or even a half dollar, going by his office to the nearest dispensary, where he is made much of, spoken of as an "interesting case, gentlemen, whom we must watch," or perhaps an important operation is done gratuitously; and as a fitting climax this young aspirant for medical honor may learn that those whom he had regarded as private patients of his own are advised by some charitably disposed neighbor that there is no use in paying him because they can go over to such and such dispensaries and be treated for nothing.

This is not one whit overdrawn, and the writers are personally and well acquainted with more than one young gentleman of brilliant promise who has been positively compelled to seek other fields of labor simply because he could not compete with such individuals and such institutions as we have alluded to.

No, gentlemen, it is the positive conviction of the great majority of the practitioners of this city that both the profession and the public would be better, much better, off if every dispensary in the city were abolished and the administration of medical charity relegated to individuals instead of to institutions. The deserving poor would be better cared for, while the only sufferers would be the colleges which bid for students by calling attention to the immense amount of clinical material offered for study: and sympathy for these would not be very extended outside their immediate "ring," considering that there are three times as many colleges in existence as there is any call for—altogether too many young men studying (?) medicine—and twice as much clinical material as can be advantageously used for any purpose except to make a show.

A favorite answer with the average dispensary trustee when the above sentiments are expressed by the younger physicians is, "Well, you had the advantage of all this material for study when you were a student, so you ought not to complain now." Such a reply, while it contains the elements of truth, must make some of us almost regret the ultimate sacrifice at which we gained these advantages, and cause us to query whether the result has justified it.

In view of all this, if, therefore, there is much difference between the dispensary and the private practitioner who opens his free museum and advertises his consultations as gratuitous, it would almost seem as if it were in favor of the latter as being the shrewder.

Another point of some interest. How often is not this question asked of the would-be dispensary patient: "Are you able to pay for treatment?" And the almost invariable answer, usually in characteristic *brogue*, is: "And if I were I wouldn't come *here!*" That is, the very doctor to whom in their avarice or poverty they apply, is probably the last one to whom they would go if willing or able to pay. And thus

the physician who connects himself with a dispensary for the indirect advantage of such a connection deceives himself and suffers more than he gains.

Well, what is to be done? But a minimum of good is done by unceasing complaint without proposing a remedy. Here is a cancer on the body medical, an abomination which ever grows by feeding on that which sustains it; and which needs most radical treatment, most vigorous cauterization, if not actual extirpation, ere it undermine the vital forces and wreck the health of that body.

Dispensary trustees are apathetic until their interests are attacked, and then they palliate rather than eradicate. It may also be laid down as a general rule that the relations between the lay managers of charitable institutions and the medical and general public are not such as ought to obtain. Why not take the broad ground that any institution which has charitable objects, be it church, hospital, dispensary or secret society, and which is not able to adequately support itself, had better bank its fires and go out of commission. This, if carried out, would materially lessen the number of churches, asylums and dispensaries, while the poor might, for the time being, suffer a little by their loss, but they would certainly be the gainers in the long run. One self-supporting or adequately supported institution can always accomplish more good than two hard-pushed affairs.

Still it may, on the other side, be justly claimed that there is always danger to the cause of true charity from the existence of too wealthy or richly endowed institutions, for they are too much disposed to bestow their benefits upon the less deserving,—crowding out the poorest on the one hand, and on the other, eliciting gratuitous services for those who are able to pay for them. Every such institution should be most watchfully guarded and the true condition of every applicant for charity be kindly and considerately, but truthfully, exposed.

What has been done in this city? Both the South Side and the Central dispensaries have districted off their respective territory, and those who are unable to leave their homes are visited. This is true charity; the only lacking thing being compensation for the visiting physicians; and this the people ought to pay, for why should the ungrateful task of attending the sick poor fall upon only a few shoulders?

For some time there was tried at the South Side Dispensary a system of close questioning and investigation regarding the circumstances of each applicant, the information thus obtained being condensed in a systematic manner and made convenient for ready reference on subsequent occasions. This served as more or less of a check, but required a large part of the time of some one competent for the task; till at last no one could be found willing to devote his time steadily to such a task without recompense, and this the dispensary was too poor to afford.

At the dispensary of the Eye and Ear Infirmary there is required of each applicant a sworn statement

over his signature that he is without means to pay the doctor. Now and then this discourages a would-be patient, but the attendance there has hardly fallen off perceptibly. If there exists a call for a dispensary of any kind it is, doubtless, for one of a special nature such as this, particularly when we consider the amount of ignorance concerning diseases of the eye and ear displayed by the average of city and country practitioners; but the patronage of such an one as much as of any should be limited to the poor. It is the writers' conviction that here, however, as well as elsewhere, many a dollar is retained which should, in pure justice, pass into the doctor's hands.

At the St. Luke's Hospital Dispensary the free distribution of medicine to every patient has of late been stopped, and as a consequence the patronage has fallen off amazingly; and if no allusions are made to the other city dispensaries it is simply because neither of the writers happens to be personally familiar with their affairs.

"But," says some sapient reformer, "let us charge a small fee for services or medicines, making it so small that the poorest can afford it." Bad suggestion. For what is the fee to be paid? "For medicine," suppose he answers. Then the very object of the measure is defeated, for the poorest of the poor, i.e. those who most need it, are the only ones who cannot pay even a ten-cent fee. "Well, then, for services rendered," he will suggest. Worse and worse. This puts the lowest possible valuation on the doctor's services, removes the last restraint from those who hesitate before accepting an open handed charity, and opens the way for a chain of abuses, as well as violations of the ethical code, the thought of which should appall the one who suggests it. Besides, if the doctors are to receive small fees, better let it be in their own offices, where they can better adjust them to the circumstances of the patient. And better yet if the doctor kept his own little supply of drugs which he could dispense for those patients who are unable to pay both for advice and drugs in separate installments. Too often the poor patient, feeling unable to pay the doctor and the druggist both, patronizes the latter as being the one most likely to exact his fee. Surely the remedy does not lie in the direction of small dispensary fees.

And just here we may call attention to the fact that the profession is largely to blame in the matter of fees. The popular fee with the average practitioner for an office prescription is one dollar. Now, the question arises, "Is it better to let every patient who is not able to pay this fee slip through our hands and go to a dispensary, or to accept whatever they can pay and keep them from preying upon the profession at large?" A comparative few can afford to sneer at such small fees, but there are well-known practitioners in this city who get less than a dollar for an office visit oftener than they get more, and who yet enjoy comparatively lucrative practices. Which is better, for instance, to get five dollars instead of fifty from a

poor laborer for curing a stricture, or to treat him at a dispensary for nothing. This disposition to sneer at small fees arises from mistaken notions, and must react injuriously on all concerned.

The effect of establishing, in a public dispensary, any system of small fees for poor people is certainly demoralizing in the extreme, and in violation of the very idea of a dispensary; it is virtually bidding for practice against outside physicians. While, on the contrary, the effect of what we have just advocated—a system which leads the poor man to seek the doctor's office, feeling that he can pay in proportion to his circumstances—is healthy in the extreme. The doctor's advice is more thought of, and his directions more implicitly obeyed; while the common people quicker learn the advantage of observing a few simple rules of hygiene, and, thus being induced to take better care of their health, a smaller proportion will be reduced to a condition of absolute and degraded pauperism.

It is questionable whether it be reason for congratulation that the remedies are all in the hands of the profession, when that profession is so split up into factions and schools and cliques that it is impossible for them to act as a unit. What could it avail the regular portion of it to adopt the necessary stringent rules and practices, only to see their errant brethren profiting thereby and turning away material from their clinics, simply because they had more than they could attend to. The greatest curses of our profession to-day are, in the first place, that to which it is the object of this paper to call attention, i.e. the abuse of medical charity: and, secondly, the heresies which engender jealousy and disastrous rivalry, and the jealousy which breeds discord and strife, partisanship and heresies.

While the people at large contribute more or less to the current expenses of these dispensaries, the brunt of the work falls upon the physicians. But why should the profession of a city attend gratuitously its sick poor any more than its pauper insane, or more than a lawyer his poor client, or the poor missionary the able-bodied poor? The doctor, more than anyone else, contributes skilled labor, and is called upon for that at all hours of the day and night. It is only the long months and years, and the hundreds or thousands of dollars spent in learning his profession, which put him in a position to give up his time with a fair expectation of a quid pro quo. Is this a sample of the "eternal fitness" of things?

And here let no one accuse us of a wish to divert charity from its true channels, nor of making any effort to evade the duty we owe our fellow men. We simply desire to shift the burden so that all may carry it instead of a few. If, therefore, the city, the county or the state; or, to put it more plainly, if the public should select a few competent men and, assigning them districts, pay them for attending the sick poor of the district, or if, in addition, it furnish medicines at cost or gratis to the poorest, what would it do more

for these poor invalids than it now does for the insane, feeble-minded, blind, aged, orphaned, or even criminal poor? And, if it do so much for these, why should it not do as much for them? Let no one fear that for this work the district physicians would be overpaid; if such a case ever happened, the item of news was suppressed ere it reached the writers' ears.

The proposition, in briefer terms, is simply this: The pauper sick as well as the paupers who are not sick, have to be supported at public expense; and that part of their support which concerns their health can be best and most effectively administered in the way suggested. One-half of the means now through public and private charity disbursed, if honestly directed through a public bureau,—and this is possible,—would effect more than is at present accomplished by the existing method of conducting affairs.

In default of this, the system of Provident Dispensaries, which seems to be giving satisfaction among the hard working populace of Great Britain, seems to be the nearest approach to a proper one. This, of course, leaves a residue of utterly destitute paupers who are, therefore, the legitimate subjects of ordinary dispensary charity.

Immediately after our great fire, the whole city was districted and paid physicians assigned to each district. When the relief work was curtailed, the pay of the physicians was stopped, and most of them resigned in consequence. So, on account of lack of means or its diversion, the best plan ever adopted here had to be discontinued.

In this connection we are delighted to be able to say that one of our local charitable institutions has recently taken a step in the right direction. The Old Woman's Home now tender a small honorarium annually to their senior medical attendant. Would that all the rest would follow!

But to return. Whatever remedies may be proposed it must rest largely with the younger members of the profession to carry them out. They lose most by the perpetuation of these abuses; they have most to gain by their correction. Nevertheless the leaders *ought not* to remain apathetic; they were most instrumental in bringing about this condition of affairs, and hence ought to more than simply countenance an effort to better it. But how can the profession unify itself in this matter? This is the problem at whose magnitude, and the practical difficulties to be encountered in its solution, we stand aghast. Undoubtedly all our hearers are as fully alive to the necessity for a radical change as we are,—yet, who is to cast the first stone?

Can no way be found, no person induced to attempt the ungracious task of gaining the coöperation of those not of our number who are yet interested or concerned in the management of dispensaries? It would be simply a source of profit to the irregulars and the sharks for the regular profession to engage alone in a crusade against this abuse; but if all could be made to look at it in the same light, such an effort would

be virtually an appeal in behalf of their pocket-books—that most powerful of all appeals—and ought to cause an unity of action which would prove as effectual as could be expected.

We may be pardoned for alluding, before closing, to one other point,—one which must at the same time be touched upon thoughtfully and yet lightly. It concerns our relations to the clergy in the matter of pecuniary return for services rendered them. We are aware that many a poor clergyman struggles along for a living, his sustenance and support being as hard to gain as that of many a poor physician; but we are also aware that in this city are clergymen with salaries equal to the income of almost any physician here, who would express no small amount of surprise were their family physicians—frequently members of their parishes—to render an account. That is, the doctor is expected not only to contribute to his pastor's support, but to never think of any return for his own services. Why we should be expected to *give* our services to men as well off in worldly goods as we, simply because they care for souls, thus getting no return ourselves for taking care of *their* bodies, is a question which needs not to be pre-faced with an apology. How many clergymen with comfortable salaries ever pay their doctor? and how how many laymen on much smaller pay settle up with a promptness that is refreshing? The reader once heard a divine of this city boast that he could take his pick out of the physicians of Chicago without having to pay any of them; he said he had one for himself, his wife had another, his children another; and, to the reader's knowledge, one of the most blatant sycophants and pretentious quacks of our city has received no small amount of profitable advertising from the lips of members of this family.

Is this a relic of the times when a tithe of everything had to go to the priest; or is it a reminiscence of the time when the priests were looked upon as beings to be propitiated? And, no matter how the custom arose, is there any good and sufficient ground for it? Furthermore, who ever heard that a clergyman ever declined to take a wedding fee from a doctor?

And herewith we bring to a close our somewhat desultory paper. Where we have rambled from the announced subject-matter we plead as excuse that there was reason for it. If it shall prove the inciting cause of a general crusade against what we complain of, we shall feel in the highest degree gratified; and if it even provoke a general discussion and ventilation of the subject we shall feel our time has not been wasted.

MR. SCHWARTZ mentions, in the Archiv für Gynäkologie, an extraordinary case, in which a midwife tore away, during labor, the whole of the uterus, which she described as the rest of the afterbirth. The ovaries and Fallopian tubes remained in the abdomen. The woman made a good recovery. The uterus is preserved at Halle.

EYE-STRAIN.

BY DR. H. GRADLE.

There exists a prejudice among general practitioners against meddling with affections of the eye whenever there is no externally visible lesion. The damage done by this prejudice is apparent when we call to mind how much misery is due to asthenopia or eye-strain, and how positively this can be relieved in most instances. It is true that for full relief the practitioner requires a certain skill in the handling of trial-glasses, and in the examination of the eye; but often a good deal can be done even without such facilities. In fact the advice to have an examination made is by itself valuable to the patient, whom prejudice also prevents now and then from seeking aid. Asthenopic symptoms vary in intensity, from a petty annoyance at times, to an incapacity to do any work requiring the use of the eyes. The least degree of eye-strain shows itself by unpleasant sensations, produced by reading or any fine work. It is sometimes a burning localized in the lids, again a feeling of pressure in the eye-ball, at other times severe pain through the temples. In the least severe cases it requires continuous eye-work to produce it, while in other instances the annoyance commences at once upon using the eyes. After the trouble has once begun it will not stop without remedial interference, or at least change of habit. In the most annoying forms of asthenopia the uncomfortable feeling or pain is never absent, even during rest, but is always increased by use of the eye at short distances. In most cases there is of course no difficulty in recognizing eye-strain as the cause of these symptoms. But then the same cause produces symptoms of a more obscure nature. Credit is due to Weir-Mitchell, for having called the attention of the general profession to the pathology of such obscure cases. It is not so very rare to hear patients complain of a dull headache in almost any part of the head, of dizziness, even of nausea and of disinclination to work. Since these persons do not refer any complaints to their eyes, the real cause is not suspected. Their suffering is indeed made worse by reading, etc., but they regard this as "natural" and do not mention it, or avoid work altogether. If questioned they may admit that after some length of time, sometimes but a few minutes, the print becomes indistinct, "the letters run together." But this inability of the ocular muscles to maintain a steady contraction does not always occur.

Not all of these patients complain of defective sight. Some have never compared their eyes with those of normal persons. Still an examination may show a visual acuity reduced to one-third the normal standard or even less. In others there exists no marked optic imperfection, or if present it is corrected by activity of the ciliary muscle. This very effort at correction is the cause of their complaints.

For comparing the sight a set of test-type is not indispensable. Any book or paper with various sizes of print will serve to compare a suspected vision with

any normal eye. The object should of course be held at a distance of at least several feet.

It is not difficult to solve the question whether eye-strain is the cause of any symptoms or not. If the complaint arises only during reading, or while performing fine work, rest of the eye will in every instance give complete relief, and if persisted in will strengthen the organ temporarily. But when optic imperfections cause a state of tonic contraction of the ciliary muscle, the mere abstaining from reading and work does not imply full rest. This can only be enforced by paralyzing the ciliary muscle with atropin. A solution of $\frac{1}{2}$ to 1 per cent in strength, dropped once or a few times into the conjunctival pouch can be safely used for diagnostic purposes. It causes dazzling in bright light from dilatation of the pupil, it renders the sight more or less indistinct according to the degree of optic imperfection, and it removes, of course, the power of accommodation. But it removes absolutely *all symptoms due to a strain of the ciliary muscle*. A precise statement as to what the drops will do calms, generally, all fear of the patient. Besides he can be convinced by a little device that his sight, though rendered indistinct by the action of atropin, has really not suffered. It is only necessary to look through a pinhole in a card. This small opening cuts off all peripheral rays of light. Although the eye may not be adjusted properly in order to unite the central rays passing through the pinhole into a focus upon the retina, this minute bundle of rays can form only very small circles of dispersion, and hence quite a distinct image can be obtained. In *bright light* this device improves the sight nearly as much as a correcting glass. In fact in absence of glasses a pinhole can be relied upon as a test, whether a defective sight is due merely to an optic imperfection or to a state of disease.

Having ascertained that a certain group of symptoms is produced by eye-strain, the treatment depends upon the cause of the strain. The simplest cases are those of presbyopia, the loss of the accommodative power in old age. Though every one knows that the range of accommodation diminishes with the years, many refuse glasses from motives of vanity or prejudice. The diagnosis is suggested at once by the age. Finding the sight normal for the distance, the accommodative power is tested by approaching fine print until it becomes indistinct. It is usually necessary to order convex glasses by the time the eye can no longer be adjusted for a shorter distance than eight inches. Not rarely such persons have bought convex glasses without benefit. This is due to the business habit of opticians to advise the weakest glass. On the contrary, the patient should use the strongest glass which is comfortable for the desired distance. Such a glass, of course, ends all trouble.

Similar complaints are sometimes urged by young persons. Many a child spends its schooldays in misery on account of farsightedness. In the hypermetropic eye the retina is situated in front of the focus of rays coming from the distance. The refrac-

tion of the eye at rest is too feeble; hence a constant accommodative effort, a tonic contraction of the ciliary muscle is required, in order to see distinctly even in the distance. There is not enough accommodation left to adjust the eye for short range. Hypermetropes, therefore, do not approach objects closely, in order to limit the work of the ciliary muscle. Now and then, however, farsighted children find it more convenient to hold their books but two or three inches from their eye, thus simulating shortsightedness. While doing this the patient makes no accommodative effort at all; the retinal image is of course very indistinct, but its increased size compensates for this want of sharpness. All strain due to hypermetropia is only relieved by glasses. If the strength of the ciliary muscle is adequate to the task of correcting the farsightedness for the distance without strain, glasses are necessary only for reading, for which purpose the strongest convex number, which is tolerated, should be chosen.

Astigmatism is also not a rare cause of asthenopia. In this trouble the sight is always dim, since, at least for the distance, any increase in the convexity of the lens is of no advantage. But full visual acuity can be obtained by looking through a pinhole in strong light. An exact diagnosis can only be made by means of cylindrical glasses, which are also necessary for relief.

All symptoms of asthenopia are now and then formed without the existence of any optic imperfections. Such individuals see well, both near by and in the distance. Their sight (for distance) is but little affected by atropin, although the complaint is temporarily relieved. In some instances I have found the cause in a chronic catarrh of the conjunctiva. At any rate the cure of this inflammation, by brushing with dilute solutions of nitrate of silver, relieved also the asthenopia. But in a certain class of patients (and this is by far the most troublesome variety) no local cause can be assigned. These are often nervous or hysterical persons, but not always. In some instances, indeed, the general health is perfect. But a symptom, which I have rarely found absent, is the quickness of fatigue from any muscular exertion. I have never met with asthenopia in a perfect eye; there existed in every instance a very slight shortsightedness or farsightedness, or astigmatism, and often slightly reduced vision. But in all these cases the optic imperfection was so slight that its correction, by means of glasses, proved useless. Generally over-use of the eye is assigned as the cause. A large number of the cases I have met with comprised lawyers and book-keepers. Again, I have found a neuralgic condition at the bottom of the trouble. This was revealed by tenderness along some of the branches of the fifth nerve and of the ciliary region. The only explanation which we can give of the occurrence of eye-strain when no local cause is to be found, is a circumscription of the facts. We must assume a state of exhaustibility of the nerve-centers

governing the ciliary muscle. An accommodative effort which is not felt in the normal condition is perceived as strain by the exhausted nerve-center.

The entire treatment can be given in one word—*rest*. Whenever we find a healthy eye with no marked optic imperfection, no failing of the accommodation—in fact no local trouble—we must insist on a vacation. If this is not possible at the time, the strain can be diminished by the use of convex glasses, and in some instances of adducting prisms. This is, however, but palliative, while a cure can be promised as the result of a vacation of some weeks or months, during which time the health is to be improved by physical exercise, out-door life and cold sponge-baths. The cold douche applied to the closed lids is often grateful, but of any permanent benefit derived from it I could never satisfy myself. Blue or smoke-gray glasses I have also learned to disregard, except for temporary purpose.

CASE OF PLEURISY WITH EFFUSION.

Paracentesis Thoracis, Permanent Cure.

BY D. A. K. STEELE, M.D., CHICAGO.

A. D., a dry goods clerk, native of Scotland, aged thirty-three years, called at my office November 1, 1875, stating that he had enjoyed good health until about twelve days before, when he was attacked with severe chill, followed by high fever and severe lancinating, tearing pain in the left chest and a short, dry cough—pain in chest aggravated by coughing or deep inspiration, breath gradually becoming shorter, appetite failing; said he had lost twenty pounds' weight during the past ten days. Physical examination showed pleurisy, with a copious effusion in the left pleura. Dr. B. H. Bingham verified this diagnosis. Paracentesis thoracis, to which patient assented, was advised.

Nov. 3d. With the assistance of Dr. S. A. McWilliams I aspirated the left pleural sac, introduced the aspirator needle between the eighth and ninth ribs at the posterior angle, and drew off sixty-four ounces of fluid. At this time pulse was 90 and resp. 32. Patient had an attack of coughing during latter part of operation, and I desisted before the sac was quite emptied. Respiratory and friction sounds on the diseased side at once reappeared. Before night pulse became 76, resp. 24, and easier.

4th, eight A.M. Pulse 74, resp. 24. Had passed a comfortable night and was much better; could lie in any position; appetite returning. Examination reveals the line of dullness lowered over affected side; fair respiration above. The heart, which previous to aspiration had been displaced two inches to the right, had partly regained its normal position. Ordered repeated blistering of the left chest, and gave potassium iodide gr. vj., tr. digitalis gtt. xx, tr. gentianæ comp. ʒj, every four hours.

6th. Continued improvement; line of dullness not perceptibly diminished.

9th. Better; bowels regular; sleeps well.

11th. Came to office to-day; says his breathing is getting better every day; still marked dullness over lower portion of left chest. Ordered blisters continued and gave hydragogue cathartics often enough to produce three or four watery stools each day.

19th. Continued improvement; heart beats in normal position; dullness disappearing gradually, although the left chest is still three-fourths of an inch larger than the right; patient went to work ten days after the tapping.

Jan. 15, 1880. I have repeatedly examined this man's chest during the past four years, and have detected no difference in its size or contour; neither do I find any variation from the normal standard of pulmonary sounds.

CORRESPONDENCE.

THE RELATIONS OF THE DOCTOR TO THE PHARMACIST.

MOUNT VESUVIUS, Feb. 20, 1880.

MR. EDITOR:—Has the awful suspicion ever dawned upon your consciousness that the relations which exist between physicians and druggists are not entirely satisfactory? Up our way the subject is being very thoroughly discussed, especially by the unemployed and unappreciated practitioners. They seem to be of one opinion and one determination: "The prevailing villainy of druggists is responsible for the prevailing raggedness of doctors, and, by the eternal, the druggists must go." Our medical periodicals—the weaker ones principally—are agitating the subject also. The editorials are, of course, strongly in favor of the unemployed, and they tend to encourage the continuance of plaintive, lugubrious communications, in which the writers call attention to the cankering sorrows of their dreary lives. How is it with you? For myself, although compelled, in consideration of the demands of fraternal loyalty, to give the druggists a kick, I declare I have been worsted every time I have undertaken to argue with them. They claim that we physicians ignore the necessities of their business prosperity; that we regard the situation exclusively from the standpoint of our own interests; and that we insist on revolutionizing their business for our own sakes, and without offering them any compensating advantage. Some of these fellows are intolerably impudent. On one or two occasions I have found it necessary to remind them of their dependence on our patronage; but they laughed at me in a very disrespectful way, and said that they guessed they could live without my patronage as well as I could without theirs. When I appealed to their reason, and showed them how essential a good prescription trade was to the very existence of their business, they said I was entirely mistaken; that their prescription business afforded but a small part of their profits, and that a good general trade was more pleasant and profitable and less laborious. They would

not subordinate the latter to the former, therefore, nor sacrifice it in order to secure the good will and patronage of any doctor. Now, Mr. Editor, what is one to do under such circumstances? Of course, I do not yield an inch to these fellows, but their assumption of independence is just as exasperating as it is unfounded. I am satisfied they are "trembling in their boots" in dread of a combined effort on the part of the profession to retaliate for their villainous practices, but they pretend to be utterly indifferent. They say that the differences at present existing between them and us are irremovable, for they are based on a natural instinct of humanity to get all the money possible. It is quite useless to appeal to their sense of honor, I am sure. They are utterly insensible to appeals of that sort. I took occasion once to snub a party of them who were talking grandiloquently of "our profession,"—meaning thereby, Pharmacy. "Your profession!" I said scornfully; "there isn't an educated one among you. You are a profession of prescription repeaters, patent medicine venders and hair-oil makers. You don't stop at anything, from counter prescribing to substituting, that will put a few extra pennies into your pockets." That floored them completely. One of them, Mr. Snipper by name, regained his self-possession sufficiently to say: "Why, my dear sir, we spend more time in preparing ourselves for our work than two-thirds of you doctors have done. There isn't one in ten of you who could sustain the examinations we have had to sustain in order to get our diplomas; and we don't pretend to belong to a very learned profession, either." I ignored this offensive remark altogether, and simply repeated, as contemptuously as I could, "Prescription repeating! counter prescribing and substituting!" In a few seconds Mr. Snipper, whose manner had changed entirely, said, with great sweetness: "You don't seem to like it, sir." "No," I said, "I don't like it." "That's too bad," he replied; "what's wrong about it?" "Wrong?" I answered; "wrong? Have you the impudence to look me in the face and defend prescription repeating?" "Certainly I have," he said; "Certainly I have. We can't help that, doctor. We have to conduct our business prudently so as to keep our customers. Prescription repeating isn't safe, and indiscriminate repeating isn't proper; but the patient assumes all the responsibility, relieving us as completely as he does you. We assume no more than we do when selling a bottle of patent medicine. In exceptional cases, when we have reason to regard the continued use of a mixture as dangerous, we so admonish the patient, and advise him to consult the doctor." (I remembered having had patients referred to me in this way by Snipper, but considered it prudent to say nothing about it.) "But even then," he continued, "if the man should insist on having the medicines, we have to yield to the inevitable and give it to him. You see, doctor, he owns the prescription. He has a right to give it away, destroy it, keep it unused, or use it twenty times. It

is his property. If I should refuse to repeat it for him I would offend him. He would at once demand a copy and get it prepared at some other store. He would never come near me again. Do you expect me to drive my customers away in vain attempts to put an extra dollar now and then into your pocket? I won't do it, sir. This is an abuse, doctor, I know,—an imposition; but we are not more responsible for its existence than you. We are unable to stop it; and, inasmuch as it is money in our pockets, we do not care about exerting ourselves to stop it." Here I interrupted him with a scathing remark on the low, groveling nature of his business, its catch-penny devices, etc., but he stopped me with a coarse laugh, and said: "Pshaw! you cannot put this question on high moral grounds, doctor, for there's not a druggist in the land who does not know that the sole animus of all this agitation is a desire on the part of impetuous doctors to get an extra dollar or two. The fact is, though, that we would be glad to help your profession if we could do so without injuring our own business. Label your prescriptions 'Dangerous,—not to be repeated!' and I warrant you there would be very little repeating done afterward. The patient would be afraid to risk it, and he would not do so without consulting you. That device would afford us the means of protecting you, without offending our patrons. Don't you see, doctor? If you don't inaugurate some such plan as this, you'll have to resort to less convenient and objectionable measures in order to stop the evil. You'll have to dispense your own medicines, or invent a system of signs which will be understood by only a few druggists and those who are pledged against unauthorized repeating. Don't you see, doctor?" "No," I said, "I don't see;" (though the fact is, I considered it advisable to change the subject) "I suppose you'll expect me to 'see' that your contemptible system of counter prescribing is unavoidable, too, if not indispensable." "Oh! not quite so strong as that, doctor," said the imperturbable Snipper; "it is, in the great majority of instances, however, warrantable, and in the light of business interests, unavoidable." I was so shocked by this declaration,—shocked and disgusted, sir,—that I couldn't utter a word, save "You impudent, conscienceless rascal!" Snipper colored up a little at this, but as he was a very slight and delicate fellow I didn't mind it. In a moment he regained his self-control and asked, in a very obsequious way, if I considered it much worse than for a doctor, and an officer in a medical society at that, to insist on receiving twenty-five per cent of the profits accruing from his prescriptions. That was mean of Snipper. The fact is, Mr. Editor, that I had made this proposition to him a year before, and he refused it. I adjured him with great austerity to be a gentleman if he could, and to avoid personalities. He smiled a long time at me, and looked so idiotic that I had to turn my face away. By-and-by he remarked steadily: "Yes, doctor, so long as counter prescribing pays better than

the patronage of physicians it will be persisted in by druggists. I don't do it myself, for I don't think it is right, morally; but with many druggists, as with many doctors (and he looked at me idiotically again), sentiment is one thing and business is another. They are after money, money, money. A sick person looks high and low for economy before the idea occurs to him that he may find it in a doctor's office; and this is especially apt to be the case if the sick person have gonorrhoea. He knows that you'll extort all you can from him, and he simply determines, as he has a right to do, to try the least expensive measures first. He exhausts the therapeutic resources of his friends before he goes to the druggist, and he goes to the druggist in order to avoid, if possible, going to the doctor. What is there wrong about it? Why, after all, is a druggist more censurable, under such circumstances, for selling a mixture of his own manufacture than he would be for selling somebody's patented specific? The patient knows what he is doing perfectly well, and the druggist takes good care not to do serious harm. If, after using two or three of these shot-gun prescriptions, the patient makes no improvement, he yields to the inevitable, and consults a physician. But if recovery ensue in a few days, he congratulates himself on having saved ten or fifteen dollars. Whether you regard this counter prescribing as reprehensible or not, doctor, it will certainly be practiced if there be no law to prevent it, as long as the sick continue to be their own masters, and as long as the druggists find it more profitable than the good opinion of doctors. Druggists, when they prescribe, do so in obedience to a demand. They do as well as they can. They do not occupy the position of advertisers or impostors. Why is it wrong for them to try to cure a sick person when the person does not want to go to a doctor? Should they compel him to go? I don't approve of this business, doctor, but it has two sides. How can it be stopped?" Long before Snipper had concluded I had assumed an air of dignified indifference and inattention, and when he asked me the question, pretending not to hear it at all, I went right on with the remark: "Sir, I have known druggists to write vaccination certificates and death certificates, and to sign them 'Doctor;' I have known druggists to criticize my prescriptions and my qualifications in the presence of my patients; I have known them to advise patients to go to some other doctor, and in one or two instances I have known them to take patients from a doctor themselves; I have known them often to put up an eight-ounce mixture, or forty powders, when only one-fourth the quantity had been ordered; I have known them to substitute cinchonia for quinia, their 'own make' for Squibb's, cheap and impure chloroform and ether for the quality prescribed, and worthless pepsin that cost them twenty cents an ounce for the article specified, which cost them, if they had it all, \$1.50 an ounce; I have known them to leave out an important article because they did not have it

in stock; I have known them to substitute in various ways; I have known them to put in half the quantity of some expensive substance and charge for the full amount; I have known them to vilify physicians in almost every conceivable way. Perhaps these things are warrantable, too, 'and in the light of business interests, unavoidable?' "No," Snipper replied; "no, doctor. Druggists, as a class, do not interfere with doctors. They do not vilify them. They do not abuse their confidence. They do not trifle with the lives of their patrons. You know that, doctor. Unquestionably there are druggists who are unscrupulous to the last degree, and who do everything you have charged. But do not make the whole pharmaceutical profession responsible for their acts. Moreover, physicians injure one another by inuendo and open disparagement; and they injure druggists, in the same way, quite as often as druggists injure them. The two professions are not to be distinguished by the unvarying rectitude of the one and the unvarying crookedness of the other. In both, the respectable, well-meaning and well-doing element is largely preponderant. You denounce or indorse a druggist as untrustworthy or trustworthy. Haven't I the same right to pass opinion on a doctor when my opinion is desired? Understand that I do not excuse these dishonest practices at all. They ought to be, and they are, regarded as crimes. But, doctor, purge your own ranks before you assail ours. If you point to a villain, I will point to two abortionists, and three 'respectable' physicians (no offense, doctor,) who insist on receiving from twenty-five to forty per cent of the profits derived from their prescriptions. Why, the Chicago Pharmacist, a very respectable periodical, openly charges that in that city—which is a model of righteousness as compared with St. Louis and other places—the current rates of extortion are exactly those I have named. The element of respectability is no larger, relatively, in your profession than it is in mine, doctor. You can avoid the dangers of substitution, and other species of swindling, by patronizing responsible men. Of course, mistakes will happen; and they are as apt to happen to a competent and conscientious physician as they are to a competent and conscientious pharmacist. When they do happen to a physician the druggist protects him if he detects the blunder. But, doctor, you are not so ready to treat the druggist indulgently. Do you remember last week, when you wrote for liquor plumbi subacetatis instead of for liquor ammonii acitatis? You told your patient that that was my blunder. Was that right? I don't mind it much, but I defended myself, of course; and I am afraid your patient has a poorer opinion of you than he had previously. But it is your own fault, doctor. The various species of thievery that are practiced by irresponsible druggists are, to some extent, encouraged by you physicians. I haven't forgotten, sir, that you advised Skrimper to go down to Bowdry's place to have his prescriptions prepared, because he could get

his medicines cheap there. Economical patients are apt to do that sort of thing, anyway, but when a physician encourages the idea of cheap medicine he probably puts the idea of short weight and measure, or of substituting a cheap for an expensive article of the same name, into the head of the——" I would not stop to hear the finish of the insolent harangue, and I departed with expressions of contempt on my lips for the whole crew of swindling pharmacists. But, Mr. Editor, where is Snipper wrong? How can I answer his arguments? He really is a competent fellow, and barring a slight disposition to be personal, he is good-hearted. He admits everything, you see, but he can give as vigorous a thrust as I can, and make as vigorous a defense, too. How do the unemployed down your way get along? The druggists up here are too sharp for anything. Please answer at your earliest convenience, but be sure to give me facts and arguments! The dishonesty of druggists is certainly a fruitful source of disappointment to physicians, and every practitioner should be on the alert for the detection of error and fraud. But, Mr. Editor, do you consider it our duty to forego the little 'twenty-five per cent,' and in order to escape the dangers of imposition, to patronize the aggressive, independent, high-toned fellows exclusively?

CLINICAL REPORTS.

Service of Christian Fenger, M.D., Cook County Hospital.

REPORTED BY J. B. MURPHY, M.D., ASSISTANT HOUSE PHYSICIAN.

Melanæmia.—The patient was an unknown man, age 25, native of the United States, and by occupation a laborer; was admitted to the hospital at 6.30 P.M., August 17, 1879. It was impossible to obtain any satisfactory history. The following fragmentary statements were all that could be gained. Had been ill about two weeks. Illness was ushered in by a violent headache, which persisted up to the time of admission; also suffered from some pain in the back, accompanied by febrile movement, anorexia, mental disorder and occasional delirium. He had some diarrhœa early in the sickness, but has had no cough and no vomiting. Lately his bowels have moved once about every twenty-four or forty-eight hours; has had incontinence of urine for a number of days. On examination I find the pupils dilated, skin yellowish brown, tongue slightly furred, lips and eyes red; pulse 84; temperature not taken; skin warm and moist; slight elevation in pitch of the sounds at the apex of left lung; numerous moist râles posteriorly; heart-sounds normal; liver dullness slightly increased; abdomen retracted; some gurgling on firm pressure; incontinence of urine; eyeballs quite prominent; tension less than normal. Ophthalmoscopic examination later showed numerous pigmented spots in the retina and free in the vitreous body;

small vessels otherwise normal. Six hours later patient was unconscious; pulse full and forcible; temperature 104; respirations 50. They were very rapid for a time, and then diminished in frequency until they reached the ordinary number per minute, when they became very rapid again. Bowels moved in bed, and he passed urine freely. Under external stimulation he revived in a measure, but gradually sank, and died two hours later, August 18, 7 A.M. Temperature twenty minutes after death, 103.

Autopsy thirty hours after death.—Heart normal in shape and size, but slightly flabby. Hypostatic œdema of the dependant portions of both lungs. Liver double the normal size; edges rounded; presents a blackish purple appearance. On section reveals a dull slate color, mottled with yellow, very friable. Spleen enlarged to four times its normal size, blackish purple in appearance; on section reddish black, very friable, almost diffuent. Mucous membrane of the intestines normal; kidneys slightly enlarged, especially the right; somewhat granular on section; capsula easily removed; some yellow markings.

The subcutaneous adipose tissue, and also that of the omentum, is of a dark, ashy-gray color.

Some opacity of the pia mater, but no flattening of the gyri, nor do they present a dryish appearance; quite a quantity of fluid in the ventricles. The cortical substance is slate color; otherwise the whole substance is normal in appearance. The microscope showed large quantities of pigment in the spleen and liver, and some in the kidneys. The cortical substance of the brain was not subjected to a microscopical examination. The blood also contained a large quantity of pigment granules.

REMARKS.—Melanæmia is a rare complication of malaria. It appears both in the acute and chronic form. Of fifty-one cases observed by Frerichs twenty-four were acute and twenty-seven chronic. Prognosis in the acute cases is always grave, and in the chronic doubtful, on account of the liability to relapse. The presence of melanæmia as a complication of malarial fever is marked by severe brain symptoms, delirium, coma and convulsions, often followed by sudden death. It is, however, well known that the above symptoms may exist in malarial fevers, independently of melanæmia, and on the other hand that melanæmia may exist without the symptoms.

Mercy Hospital Gynecological Clinic, by Prof. E. W. Jenks. Case, Complete Hysterectomy.

The patient was admitted to the hospital January 3, 1880. She is thirty-eight years of age, married, the mother of eight children and the victim of three miscarriages. Her present weight is 180 pounds, and she tells us that formerly she weighed 220 pounds. Her health was good up to six months ago, at which time she noticed the occurrence of uterine hemorrhage. This hemorrhage has been more or

less continuous, but it has not been attended by any specially troublesome symptoms. Examination reveals an epithelioma of the cervix which nearly fills the vagina. Prof. Jenks deemed an operation necessary for the safety and comfort of the patient. He considers that in the case of these malignant growths there is reasonable probability of a complete cure ensuing if the operation be performed sufficiently early, and that an operation is indicated in most cases, especially when the hemorrhage is great, the discharge offensive and the suffering intense. In the earlier stages of the growth he recommends complete removal; in the later stages removal of as much of the growth as can be done with safety. By the former proceeding he seeks to effect a cure; by the latter he hopes to give the patient a longer lease of life and greater comfort while life lasts. Life is sometimes lengthened by several years by even incomplete removal of the growth, and death may result from some intercurrent disease with which the primary disorder has no connection. Hoping in this case to eradicate the disease, the operation was performed January 8, in the presence of the class of the Chicago Medical College. The patient was etherized and placed in the Simon or exaggerated lithotomy position. A large-sized Simon's speculum was introduced with difficulty, owing to the occupation of the vagina by the growth. The operator stated that the operation might be performed with the ecraseur, the galvano-cautery or with cutting instruments. He objected to the cautery because it would so char the tissues as to make it impossible to tell when all the diseased portion had been removed. The ecraseur was liable to a similar objection because it bruised the parts. Cutting instruments were, therefore, preferable. Seizing the tumor with forceps, the operator removed it piece by piece with curved scissors. The hemorrhage was profuse. Having excised the cervix, and finding more diseased tissue above, he extended the operation to the body of the uterus. Removing the growth piece by piece, he finally penetrated into the peritoneal cavity,—the intestines escaping into the vagina. Replacing the intestines, the operator attempted to close the wound with sutures. The attempt failed, however, owing to the softness of the parts. The operator then proceeded to remove the remainder of the friable mass,—that is, the remainder of the uterus; and having accomplished this, he closed the wound with silver sutures. The patient seemed to be moribund at the time, but in a few hours she rallied completely. She was put upon the free use of opiates and quinine, and the vagina was cleansed twice a day with a solution of permanganate of potassium. At no time after recovery from the shock of the operation did the pulse rate exceed 98 per minute, nor the temperature 101° F., and both were normal after the first eight days. The sutures were removed January 24, and the patient, having made an excellent, though unexpected recovery, soon after left the hospital.

INSTRUMENTS.

LITHOLAPAXY is the name of a new operation for the crushing and removing of stone from the bladder at one sitting, an operation perfected by Dr. Henry J. Bigelow, and described with cuts, in the Boston Medical and Surgical Journal, January 8, 1880. The following is an abstract of Dr. Bigelow's paper:

This operation is safer than the old one of several short sittings, although it requires greater skill, and should be attempted only by experienced lithotritists. The experience of Dr. Bigelow demonstrates that the

bulb. The lithotrite is then introduced and the stone crushed. A large catheter is now passed into the bladder to evacuate the fragments, which fall at once to the bottom of the bulb, and remain there undisturbed by the current of air. If the side of the bladder, hanging loose, clogs the catheter, the bladder should be distended by the injection of a little water from the bulb, which will be retained in the bladder by closing the cock of the catheter. In pumping, a couple of ounces of water are gently moved backward and forward between the bladder and the bulb, once in a second or two. The short elastic tube between

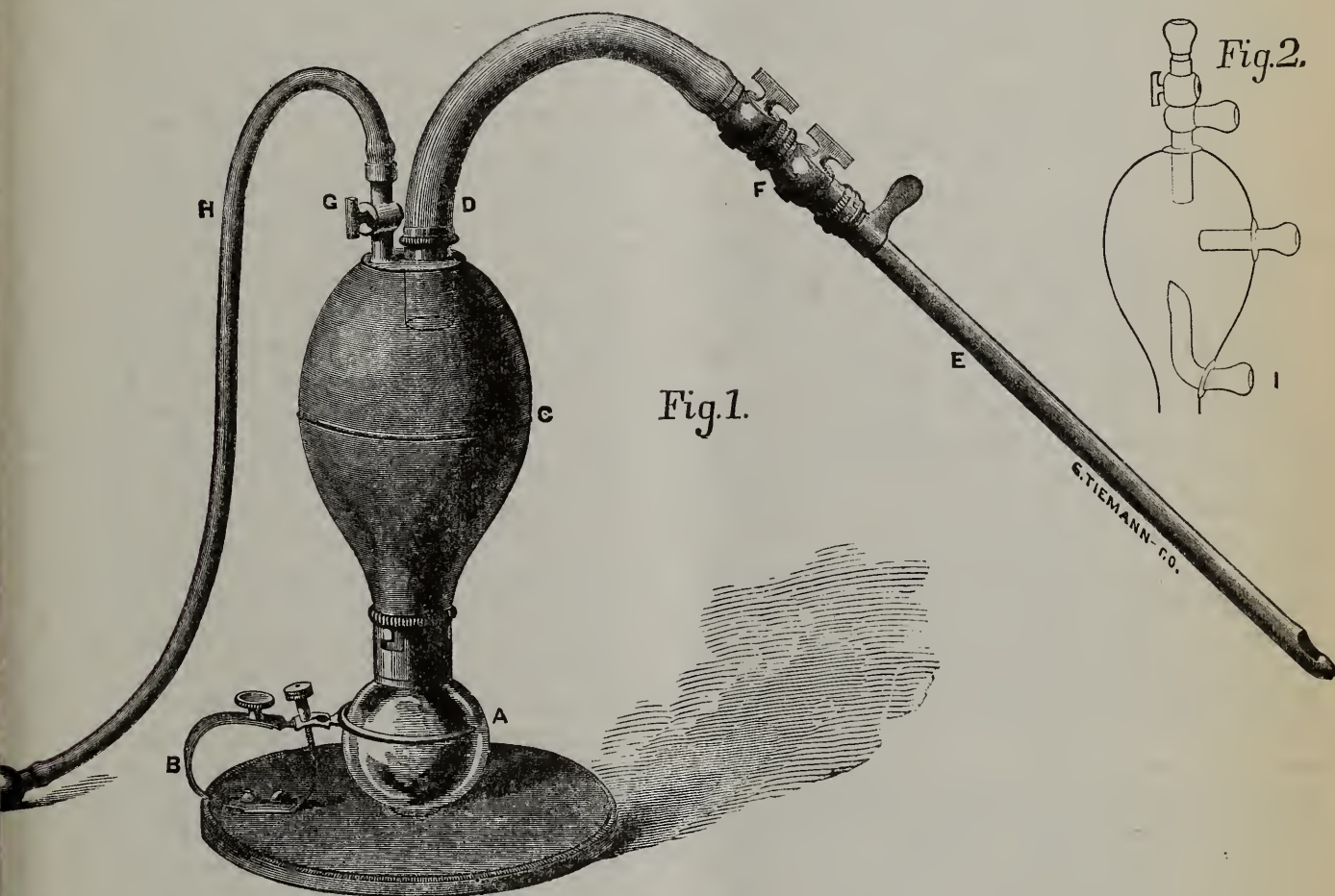


FIG. 1.—A, glass trap to receive the fragments forming, with the screw-catch B, which supports it on the stand, a ball-and-socket joint.

C, Elastic bulb or bottle for pumping fluid in and out of the bladder.

D, Elastic tube, five inches long. One end is attached to E, the evacuating catheter, and the other is continued into the bulb to form a chamber above its orifice for isolation of air.

F, Coupling between the cocks of the evacuating catheter and the elastic tube.

G, H, Small hose for expulsion of air and introduction and expulsion of water to and from the bulb, with a movable attachment at G.

FIG. 2.—Diagram of a bulb used for experiment.

[E. H. SARGENT & Co., Chicago.]

bladder will tolerate long operations, provided that the fragments, which are the real cause of subsequent inflammation, be removed. The operation depends upon the enlargement of the evacuating tubes, from the size of the common catheter to the largest (26 to 31 French) that the urethra will tolerate. The straight catheter or tube is preferred, because its position in the bladder may be more accurately determined than that of the curved. Its orifice is located on the side, a quarter of an inch from its end, to prevent obstruction by the bladder wall, and to facilitate its introduction. The operation is as follows: The urine is drawn and replaced by water from the

the bulb and the catheter prevents the jar of pumping from reaching the bladder. The tube should be held just off the floor of the bladder to avoid being clogged by the debris. A thorough sounding should follow the evacuation. I doubt the expediency of leaving fragments in the bladder. The operation would be absolutely dry did not a sensitive bladder occasionally contract and squeeze out a little water by the side of the instrument. Rapid lithotripsy was made easy when Otis demonstrated the fact that the capacity of the average urethra was very nearly 33. Sittings are now lengthened from a few minutes to an hour or more.

SAWYER'S ROUND KNIFE.—This instrument, which is represented in the cut, was devised by Dr. Edward Warren Sawyer, of this city, for the purpose of denuding the surface in plastic operations about the



perineum and vagina, and for the same purpose in the operation for laceration of the cervix uteri. After using the knife several times in these operations, the author claims that it has certain advantages which commend it to notice.

REVIEWS AND NOTICES.

REYNOLDS' SYSTEM OF MEDICINE. Hartshorne. Volume II. Diseases of the Respiratory and Circulatory Systems. Philadelphia: Henry C. Lea, 1880. Sold only by subscription. J. H. Chambers & Co., 305 Locust street, St. Louis, agents for Missouri, Nebraska, Illinois, Texas and Arkansas. Lemuel Freeman, 110 Dearborn street, Chicago, agent for Minnesota, Wisconsin and Iowa.

The ideas we have gathered from an examination of the second volume of the great English work on Practice may be expressed in the words, "commingled satisfaction and disappointment." The diction is terse and lucid; the subject-matter is, in nearly all instances, exhaustive; the descriptions are unsurpassable; the sections on pathology are voluminous and instructive; the remarks on treatment are copious and explicit; but the editor has not taken sufficient pains to bring the subject-matter up to the times, on the one hand, nor to adapt it to the needs of American readers on the other. The English names of medicines have not, in all cases, been rendered into the terms of our literature. For some of the English officinals we have no equivalents in this country; but in this book not a few instances, but many, are to be noticed of failure to translate into the language of our pharmacopœia English terms that are easily translatable. Here and there prescriptions or combinations are recommended, in which the average American reader would be unable to recognize a single ingredient. These oversights may, or may not, be of vital importance, but they should not have occurred at all. They are sure to be a source of more or less uncertainty and annoyance.

In this, as in the first volume, the included subjects represent so many monographs by Great Britain's most distinguished medical authors. The names of Hyde Salter, J. Hughes Bennett, Wilson Fox, Graily Hewitt, Anstie, Jenner, and others of like prominence, stand at the head of the several articles. This is sufficient guarantee of the standard quality of the instruction. But these articles were actually written several years ago, and they cannot in all cases be regarded as representing the accepted teachings of

the present day. Sufficient care has not been taken to incorporate the fruits of more recent researches, and to recognize new medicines of established value. The justice of these remarks will be admitted by anyone who reads the chapter on Asthma, or the chapter on Pulmonary Phthisis. The former was written by Hyde Salter, than whom, perhaps, no living man is better qualified to speak with authority. He himself has been a sufferer from the disease for many years; and yet, in the remarks on treatment, no mention is made of iodide of potassium, grindelia robusta, or nitrite of amyl, which, to say the least, are as extensively employed in this country at the present time as any other medicines, and much more extensively than tobacco, to which special prominence is given in the text. These are not exceptional instances of the carelessness of the editor, but they are made particularly prominent by the fact that one of the contributors to the work is enthusiastic in his other writings on the subject of iodide of potassium; and another contributor, Lauder Brunton, has done more than any other man to demonstrate the modes of action of the amyl compound. The article on Pneumonia, by Wilson Fox, is a model of completeness. It is one of the ablest contributions to the volume—exhaustive to the minutest detail, and logically conservative to a degree. The pathological nature of the disease receives very elaborate consideration. The old-time opinion, that pneumonia is a simple inflammation attended with febrile phenomena, is dismissed as being no longer tenable. The modern view, so ably advocated by Jeurgensen, Flint and others, that pneumonia is a peculiar fever, like typhoid and typhus, with local lesions in the lungs and a definite course, is accepted, cautiously, in a modified form. "The most probable hypothesis," says the author, "is that the blood is altered in composition, or there is some morbid material in it, which may excite inflammation in the part of least resistance. The nature of these supposed blood changes is unknown." While the conclusion appears to us to be weak, when compared with the antecedent forceful reasoning, it embodies the central idea of the modern doctrine, that some species of infection precedes the development of inflammatory and febrile phenomena. His treatment, as previously intimated, is extremely conservative. Venesection is strongly reprobated under all circumstances, except in very rare instances, when it can be practiced early to avert the immediate danger of death from asphyxia. Baths and cold applications are warmly approved; counter-irritants are said to be harmful, except when resolution is delayed; poultices and fomentations are referred to in terms of mild approval; and all vigorous medication is unqualifiedly denounced. "The milder cases require no medicine. * * * The less active remedies are, the better for the patient." The chapters on Pneumonia and Phthisis are well worth the price of the whole volume. The views of Prof. Bennett in relation to the morbid anatomy of tubercle are, in

the light of modern investigations, decidedly peculiar, but it must be admitted that they are very ably maintained. Altogether this is the most charming and instructive essay on the subject we have ever read. The style of the author is short, vigorous, argumentative and entertaining. If a brief supplement were appended, setting forth the commonly accepted opinions of the pathology of phthisis, the completeness of the essay would be enhanced. The distinguished author scouts the idea of tubercle being a "growth," and peculiar to lymphatic structures, and holds that it is an albuminous exudation which may occur in any vascular tissue. There is no essential difference, morphologically or genetically, between the "yellow" and the "gray" or miliary. Perversion of nutrition caused by hereditary taint, vitiated air, imperfect assimilation of food, inoculation of various matter, etc. etc., may originate, or coöperate in originating, impairment of vital power. Then accidental irritation of the lungs, often inappreciable, causes congestion here and there, which terminates in exudation. The exudate coagulates, and thereby constitutes tubercle. There is not an anatomical preparation in existence that demonstrates a different mode of origin for the product. In relation to the etiology of the disease it is maintained that inherited weakness is by no means as influential as vicious methods of rearing the young. Tuberculosis is not contagious. One person may contract it from another by inhaling for long periods together the contaminated atmosphere of a close room; but exposure to the atmosphere breathed by consumptives is attended with no danger if good ventilation be maintained. Healthy persons are strongly advised against occupying the same bed with a consumptive, and even the same room, unless it be thoroughly ventilated. "Air impregnated by means of an atomizer, with a mixture of phthisical sputa and water, will cause phthisis in animals breathing it. But bronchitic sputa, used in the same way, proves disastrous in exactly the same ratio of cases. Cheese has a less constant effect. Hence, though phthisis may be produced by introducing tubercular matter into the system, this is not a specific infection, because non-tubercular matters have the same effect."

The prognosis is remarkably cheerful. It is said that there is nothing essentially destructive or incurable in the disorder; that, in the great majority of cases, life may be considerably prolonged, and in many of them it may be prolonged indefinitely; and that in many other cases, the number of which is annually increasing, a complete and permanent cure may be effected. The singular hopefulness of the author will be regarded, we think, by the average reader as an example of mild, harmless and consoling exaggeration; but the statistics he adduces appear to indicate very plainly that the mortality of the disease is steadily declining in Great Britain. The chapter on therapeutics is full and satisfactory, and it accords well with the author's views of the pathology

of the disease. He reprehends, in the strongest terms, the indiscriminate employment of powerful medicines for the relief of special symptoms at the expense of disturbing digestion and in other ways impairing nutrition. Of course, due prominence is given to cod-liver oil, the favorite child of the author. "Instead of endeavoring to relieve cough or favor expectoration, try to improve nutrition, to cause absorption of the tubercle, to arrest the ulcerative processes, and to prevent recurrence of the disease. Proper diet, including cod-liver oil, pure air—and as much of it as possible—a temperate climate," etc. etc., are the measures upon which most reliance is to be placed. The essay is the most instructive of any on that subject we have ever read. The other chapters of the book have not quite reached the high standard of excellence of the articles on Pneumonia and Phthisis, but alone, or in less distinguished company, they would be regarded as exceptionally able.

CONSUMPTION AND HOW TO PREVENT IT. By Thomas J. Mays, M.D. New York: G. P. Putnam's Sons. Chicago: W. G. Holmes.

It is of about the dimensions of a child's "primer," and it consists of a semi-scientific, semi-popular disquisition on the influence of food, air, light, clothing, etc. etc., in correcting a predisposition to consumption. It appears to be addressed to the laity, and especially to those persons who have a tendency to the disease themselves, or have the care of weakly children. The subject-matter, though fanciful here and there, is, in general, sound. The book is well adapted for the guidance of parents, and if its teachings were generally observed by them, the number of puny children and delicate adults, and the mortality from consumption would be very much lessened. Price \$1.00.

THE HYPODERMIC INJECTION OF MORPHIA. Its History, Advantages and Dangers. By H. H. Kane, M.D. New York: Chas. L. Birmingham & Co., 1880.

In these times, when subcutaneous medication is so extensively employed that it may be said no physician is fully prepared to meet the exigencies of disease who has not a hypodermic syringe, the introduction of a work of this kind will meet the hearty approval of all who are acquainted with the extent to which abuses of the keen, two-edged little weapon is carried. It will appear, from one of our editorial notices, that in spite of the well-grounded admonitions of all modern writers on the subject, there are men in the profession, still, who are utterly indifferent to, if not ignorant of, the teachings of experience, and who are utterly unfit to have a hypodermic syringe in their possession. Unfortunately, the persons to whom this little work is especially addressed, are, of all persons, the least apt to see it and read it. They are thoroughly satisfied with themselves already. The book is timely. It represents a vast amount of conscientious research. It is judiciously arranged, well written and well printed. The advantages and

dangers of hypodermic medication are set forth with all necessary elaborateness of detail, and there can be no doubt about the reliability of the information, and the soundness of the author's conclusions. Dr. Kane has done his work with conscientiousness and intelligence, and his book is worthy of a place in every medical library.

BOOKS AND PAMPHLETS RECEIVED.

THE TRANSACTIONS OF THE MEDICAL SOCIETY OF VIRGINIA, 1879.

JARVIS S. WIGHT, M.D. The Fallacies of Popular Clinical Medicine. An Introductory Lecture delivered at the Long Island College Hospital, Brooklyn, New York, February 5, 1880.

F. F. DICKMAN, M.D. A Rare Cure of Peri-Neuritis. From the St. Louis Medical and Surgical Journal, December, 1879.

H. H. KANE, M.D. The Hypodermic Injection of Morphia. Its History, Advantages and Dangers.

THOMAS J. MAYS, M.D. Consumption and How to Prevent It.

UNITED STATES PHARMACOPŒIA. Report of the Revision of the United States Pharmacopœia preliminary to the convention of 1880: being a rough draft of the general principles, title, and working formula proposed for the next Pharmacopœia. Prepared and compiled by Charles Rice, chairman of the committee. New York, 1880.

J. RUSSELL REYNOLDS, M.D. A System of Medicine. Vol. I. General Diseases and Diseases of the Nervous System. Vol. II. Diseases of the Respiratory and Circulatory Systems.

C. GILBERT WHEELER. Medical Chemistry, including the outlines of Organic and Physiological Chemistry. Based in part upon Riche's Manual de Chimie.

MICHIGAN STATE BOARD OF HEALTH. Seventh Registration Report, Michigan, Vital Statistics, 1873, published 1879.

Sixth Annual Report of the Secretary of the State Board of Health of the State of Michigan, 1878.

TALBOT JONES, M.D. A Plea for Cold Climates in the Treatment of Pulmonary Consumption. From New York Medical Journal, September, 1879.

OFFICIAL LIST of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 16, 1880, to February 28, 1880.

Byrne, C. C., major and surgeon. Granted leave of absence for twenty days. S. O. 2, department of Dakota, Feb. 18, 1880.

Loring, L. Y., captain and assistant surgeon. When relieved by assistant surgeon D. M. Appel, to proceed to Ft. Dodge, Kansas, and report for duty at that post. S. O. 39, department of the Missouri, Feb. 20, 1880.

Hall, J. D., captain and assistant surgeon. Relieved from duty in department of Texas, and to report to

commanding general, department of Dakota, for assignment to duty. S. O. 35, A. G. O., Feb. 13, 1880.

Appel, D. M., 1st lieutenant and assistant surgeon. Assigned to duty at Ft. Supply, Indian territory, relieving assistant surgeon Loring. S. O. 39, c. s., department of the Missouri.

Drs. Geo. McCreery and Ed. D. Schuë, of New York City; Richard C. Newton, of New York, and John J. Cochran, of Massachusetts, having passed a successful examination before the Army Medical Board, now in session in New York city, were, Feb. 18, 1880, confirmed by the Senate as assistant surgeons United States Army, with the rank of 1st lieutenant.

DR. H. H. KANE, 366 Bleecker street, New York, requests us to bring the following questions before members of the profession, stating that all communications will be considered strictly confidential.

1. In how many cases of delirium tremens, in what doses and with what result have you used morphia hypodermically?

2. Have you used the drug in this manner in acute inflammatory affections of the respiratory organs, and with what result?

3. Have you used it in acute or chronic renal disease, and with what result?

4. Do you know of many deaths due to the subcutaneous injection of morphia? If an autopsy was held, please state the result.

5. Have you had any serious cases of narcotism from the use of morphia in this manner? If so, please state the condition of the pupils, number of the respirations and pulsations, the amount of morphia used, whether there was any known organic disease, and whether there was any opium idiosyncrasy.

6. Have you had any cases where the drug was thrown directly into the blood? What were the symptoms and what the treatment?

7. In what diseases have you used this method of administering morphia and with what results?

At a meeting of the Yale Alumni in New Haven the graduates of the law department walked in order to the platform for their diplomas; they were fifty in number, and Dr. Ben. Cotting, who was present, exclaimed "the country is safe." Next came the graduates of the medical department, numbering two, when the doctor added "the country is safer."

THE ELECTRIC LIGHT of Edison's horse-shoe carbon, rendered incandescent by the current in vacuo, may be used to illuminate bodily cavities in surgical operations.

PROFESSOR BELL, a German by birth, a Roman by residence, is dead. He was among the microscopists of note.

Chicago Medical Gazette.

PUBLISHED ON THE 5TH AND 20TH OF EACH MONTH.

OFFICE OF PUBLICATION, 70 MONROE STREET.

TERMS, \$2 A YEAR, IN ADVANCE.

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Editorials under the heads of the special departments may generally be accredited as indicated above.

VOLUME I.

CHICAGO, MARCH 20, 1880.

NUMBER 6.

THE AMERICAN MEDICAL ASSOCIATION.—We are informed through the various medical journals that the American Medical Association will convene in New York, next June. This announcement is made with the usual statement, that the committee is making special efforts, and that the meeting will be one of more than ordinary interest. This was promised for the last meeting, for the one preceding that, and indeed for all previous meetings; though they all appear to have been, as a matter of fact, of very ordinary interest. They ought to have been of extraordinary interest, but were not. This is not strange. It would have been strange if these meetings had been of marked importance. The association, in its present condition, is not adapted to produce important meetings. It has never made any adequate move for stimulating original investigation. Nor has it been in the habit of expressing its opinion, as an association, upon subjects brought before it. Nor has it aimed, apparently, to make itself felt in the medical world as an organization of genuine worth to the profession. It meets once a year, has a variety of papers read, good, bad and indifferent; appoints, with little or no deliberation, several committees; accepts invitations to visit manufacturing establishments, and caps the whole by a grand ball, or something of the sort. Indeed it becomes a medical junketing party, holding much the same relation to the profession that the so-called press associations, which inflict themselves upon the railroads and hotels annually, hold to journalism. To the uninitiated it seems of great importance; to the profession it is much less so. Having gone through these formalities, it prints a voluminous report of its proceedings. This is published at great expense, contains a vast deal of matter which nobody wants to read, papers which are valueless, with of course a few of great value, and the details of pro-

ceedings that are practically useless. This is the last of the association until the next meeting is held, when the same order of things is repeated. Now we have no disposition to be censorious, much less do we seek to effect great reformations in a day, but we respectfully submit that the methods and aims of this association are unworthy the profession it assumes to represent. The preliminary suggestions we design making on the subject are obvious to any one who has considered it at all; but they need to be stated and re-stated until they find lodgment in the minds of those who are responsible for the present condition of the association. In the first place, the meetings should be in no sense pleasure parties; whatever individual members choose to do, the association as such should take no part in anything that is foreign to the purpose for which it ought to exist. It is one thing for individuals to spend their time in looking over manufacturing establishments; it is quite another matter for the association as such to do this. The latter gives an advertisement to the place, the former does not. So, too, if some of these scientific investigators desire to trip the light fantastic, well and good, it is their affair; but it is not clear why the presumably scientific body itself should devote its time to a grand fandango.

We are compelled to think that this junketing spirit detracts very much from the usefulness of these meetings. It is not light-heartedness that needs development in the profession; nor is there any marked demand for increase of social opportunities. There is need, however, for encouraging original research in medical science, and this association ought to be foremost, and untiring in its efforts to this end. This ought to be its mission. It should have no lesser cause for existence, and yet it is difficult to find that it has been, or is now, any special help to

genuine investigation. Not that money enough is not spent. The annual report is a sufficient guarantee that there is no narrow spirit in regard to expenses. The trouble is that the money is misdirected. The report of the last meeting, for instance, is a bulky volume of over one thousand pages. Some of the matter is valuable; some has the opposite quality. It is an admirable place in which to bury an important paper; it is a convenient place in which to print papers which never would see the light elsewhere; it is also a convenient place for printing a large number of names of medical men of more or less repute, and it is gratifying to very many to see their names in literature, even if that literature is to take its place beside patent-office reports in the dusty libraries of dark garrets. Now, why spend so much money on such a publication? An abstract of the proceedings would be useful to a much larger number of medical men than can ever see the heavy volume now published. The papers that ought to be published in full are certain to find a wider circulation in medical journals than they do in this form, while such as are not worthy ought not to cumber the pages of the annual report. The money saved in this way might be expended to far better advantage in prizes. They would be a stimulant to investigation, and the association would thus, in one respect at least, fulfill its proper mission. There is a resolution resting over from the last meeting respecting prizes. It ought to have been in operation years ago, but it is due to the profession that no further delay be allowed, and with curtailment in other directions the proposed prizes could profitably be increased in number and value.

SUGGESTIONS.—It is often the case that the discussions on the papers presented to the American Medical Association are more important than the papers. A very trifling paper may excite discussion of great interest and value. Why should the paper be published and not the discussion? The fact that a paper is prepared with great care and labor is no guarantee that it is worth publishing. The fact that a discussion is unpremeditated is no proof that it is not worthy of preservation. The paper is very likely to be by some one who has nothing new nor fresh to present. The discussion may be conducted by men thoroughly versed in the subject who have novel facts to communicate, which the profession at large ought to know. Now the plan of printing an abstract of the proceedings, suggested above, would provide for everything of value in these discussions. Obviously, there is no more need of printing the discussions in full than the papers and other proceedings. Capable men should be assigned to follow the debates, and sift them out, saving what is essential and throwing

the rest away. The appointment of the committees is a matter which deserves the most careful consideration. There is constant temptation to use the appointing power for political ends, and this temptation is too often yielded to. It is comparatively of very little importance by whom the association is officered, but it is of very great importance that the technical questions to be considered and reported upon be referred to men who are best able to examine them intelligently. Their appointment should have only this aim. In point of fact committees are often formed with the slightest possible reference to the questions involved, but with special regard, apparently, to the future control of the association. In a body comprising so large a membership there are men specially adapted to special subjects, and they should be sought out and appointed without regard to territorial claims or individual ambitions. We may be charged with seeking an ideal organization in this respect, but, on the contrary, we only seek such methods as are not disgraceful to the profession and to a great body which claims to represent the profession. Let the right men be appointed though the political slates are all broken by the process.

Why does this association have no opinions to express? is a question that is frequently asked. We cannot answer the inquiry. It is not a very old body and possibly has not overcome its youthful modesty. It is barely possible that those who have felt the responsibility of it do not regard their experience as sufficient to warrant the expression of opinions. If these be the causes, we may reasonably expect that with the maturity of the body and the increased opportunities and experience of its members will come definite opinions, and less reluctance in expressing them. It is not impossible that the time of the meetings has been so occupied with the absolutely necessary barbecues and excursions, dinners and dances, as to prevent sober reflection and calm conclusions. If this be the case, no doubt time will lessen the necessity of frivolity and increase the chances for solid work. It is evident that there are many topics which a representative body ought to have and express opinions upon. Opinions are no more dishonor to an association than to an individual. Indeed, the former is likely to form clearer views than the latter, because public discussion always tends to expose fallacy and to crystallize truth. In this respect the American Medical Association may properly imitate the example to the more progressive societies abroad. The expression of opinion arouses study and experiment, and for one we shall feel that a decided advance has been made when this association shall have considered certain vital subjects sufficiently to express an opinion upon them.

POISONING BY THE OIL OF TANSY.—Dr. G. Jewett, in the *Boston Medical and Surgical Journal*, March 4, calls attention to the toxic effects of tansy in the report of several cases of grave poisoning. In case I, about fifteen drops of the oil were taken at eleven o'clock in the forenoon. At two o'clock P.M., after a hearty meal, a teaspoonful more was taken. Convulsions and shock immediately followed. There was also general cyanosis. The patient recovered. The menses appeared on the following day three or four days before time. The remaining seven cases are reported by Dr. Jewett from various sources. In case II, a teaspoonful of the oil was taken to promote the catamenia. Convulsions, irregular pulsations and laborious breathing followed, and death ensued in one hour and a half. In case III, an unknown quantity of the oil was taken with a criminal intent. Convulsions, labored and stertorous breathing followed, and death in three and a quarter hours. A well formed four-month fœtus was found at the autopsy undisturbed in the uterus. From certain facts it was estimated that eleven drachms of the oil had been taken. Case IV, a teaspoonful of the oil of tansy was taken to induce miscarriage. The young woman recovered after becoming comatose from the effects of the drug, which failed to excite the abortion. In case V, four drachms of the oil of tansy were taken. Spasms, disturbed respiration, and great feebleness of the heart's action followed, and death ensued. Case VI, was one of rapid death following the use of the oil without effecting abortion. In case VII, a decoction of tansy leaves was taken with a criminal intent. Paralysis, contracted pupils and coma followed, and death in twenty-four hours without action of the uterus. Case VIII was that of a woman three months advanced in pregnancy, who had taken a daily draught of the infusion of tansy for a week, for the purpose of exciting abortion. She also used a stronger decoction as a vaginal injection. The following morning she aborted, but suffered subsequently from metritis and general peritonitis, and recovery was delayed for three months. From these reports it is evident that the use of tansy is attended with danger. It is a potent poison, requiring in some cases but one teaspoonful of the oil to cause death. In the eight cases in which the drug was taken in varying quantities, death was the result in five,—a result which should terrify those who use this drug to induce abortion. The drug, moreover, is shown to have little, if any, emmenagogue properties. Of the five cases in which it was employed to excite abortion, only one gave evidence that the ovum was disturbed, and this disturbance did not occur until the drug had been used for a week. Arsenical poisoning is scarcely less fatal and

certainly more emmenagogue in its results. If, therefore, one must be used, the latter is preferable.

THE DEATH OF DR. THOMAS BEVAN.—Just before going to press we have the painful duty of recording the sudden death of one of the most accomplished and successful of the profession in Chicago. The death of Dr. Bevan occurred under the following circumstances: He went to his office at eleven o'clock on Monday, March 15, apparently in his usual health. At two o'clock, on the afternoon of the same day, he was found lying dead upon a couch in his office. The coroner's inquest developed the following verdict: "That said Thomas Bevan, M.D., came to his death on the 15th day of March, 1880, at his office, No. 785 Wabash avenue, by reason of an overwhelming acute congestion of the brain and serous effusion supervening upon pathological conditions left by cerebro-spinal-meningitis." The jury were Alonzo Huntington, H. A. Johnson, Roswell Park, J. J. Siddall, R. M. Johnston and James H. Etheridge. Dr. Bevan's family consists of a wife, two daughters, and a son who is a student of medicine. The expressions of sympathy for the family and of respect for the deceased are universal.

LISTERISM.—We quote from *Medical News and Abstract*, February, 1880, a confession of faith which forms a part of an editorial in the *Lancet*, December 20, 1879. "After the most careful consideration of the subject, we believe Listerism has undoubtedly diminished the mortality and the danger to patients situated under unfavorable hygienic conditions, after surgical operations; and holding this belief, we may argue from the greater to the less, and assert our conviction that this same system is capable of preventing septo-pyæmia in patients under almost all circumstances. We hold therefore that Listerism is destined to be the surgery of the future; for, however difficult the details or length of time required to carry out these principles in individual cases, it must and will prevail, because it guards our patients from unquestionable dangers."

NOCTURNAL TERRORS OF CHILDREN.—Dr. Wertheimer, in a paper published in the *Jour. des Sci. Med.*, 1880, page 44, and abstracted in the *Philadelphia Medical Times*, January 13, 1880, recommends quiet, a large, airy, well lighted chamber, and a light supper; quinine, if the terror returns night after night; bromide of potassium in the dose of four to eight grains an hour before retiring, with the addition sometimes of a small quantity of chloral. The general indications, when present, of cod-liver oil, milk, iron, salt bathing, cold effusions, etc., are important.

THE EXCRETION OF NITROGEN.—One of the most generally adopted assertions in the physiology of nutrition has hitherto been that all the nitrogen of the food leaves the body with the urine, mainly in the form of urea. It is true that Regnault and Reiset, to whom we owe the first well conducted quantitative experiments on the respiration, had obtained a different result. Their experiments showed that the normal body excretes a small quantity of gaseous nitrogen through the lungs, while during starvation the reverse occurs, nitrogen being absorbed by the lungs. While their general results have been regarded as models of scientific work, a strange inconsistency has induced physiologists to doubt the statements regarding gaseous nitrogen. These results have even been accredited to errors of observation, especially by the Munich school. Vogt, of Munich, tested this matter some years ago with commendable diligence. Pigeons were fed wholly on peas, while the urine and fæces were daily analyzed. He found thus, apparently, that the entire amount of N. ingested could be recovered,—the undigested portion from the fæces, the assimilated part from the urine. Since then he has denied the exhalation of gaseous nitrogen. Seeger and Nowak contested these results of Vogt some years ago. They claim that the figures representing the percentage of nitrogen in the food are too low by 7 per cent, since the analysis was made by combustion with soda and lime. It is now recognized that the results of this method are too small. At that time Seeger and Nowak repeated the experiments of Regnault and Reiset with identical results, which were again doubted by the Munich school. Within the last year S. and N. have appeared again, this time with an apparatus deserving absolute confidence. (Pflüger's Archiv. XX, p. 347). Their experiments, thirty-two in number, pertained to chickens, pigeons, rabbits and dogs. These animals were enclosed in an air-tight chamber in which they remained from 15 to 110 hours. The CO₂ produced and vapor of water were absorbed as fast as they were formed, while oxygen entered the box in the ratio of its absorption by the animal. At the close of the experiment the amount of nitrogen in the air of the chamber was found to be increased in all instances. Rabbits exhaled the least amount, from 4 to 5 milligrams per hour, and per kilogram of weight. In the other animals examined, the excretion amounted to 7 to 9 milligrams per hour, and per kilogram of bodily weight. Assuming the same ratio in the case of man, the total exhalation of nitrogen through the lungs would be in the vicinity of 10 grams in the course of 24 hours, a figure which equals in amount one-half of the nitrogen contained in the urine. In the apparatus employed by Seeger and Nowak the animals could not remain

over 24 hours without interference with their well-being. This the authors attribute to the exhalation of poisonous organic matter in minute traces. Their view was supported by the test. The air of the apparatus was purified by passing it continuously through a hot combustion-tube filled with cupric oxide, and returning it into the chamber. This arrangement preserved the animals in a healthy condition.

TRACHEOTOMY.—In a report from the Hospital of Bethania, Berlin, Dr. Settegast gives in full the statistics of tracheotomy in the treatment of diphtheria. In a period of sixteen years (1861–1876), tracheotomy was performed upon 754 children. Of these 512 died; seven were taken from the hospital not cured; 235 or 31.16 per cent were cured. In the three years, 1873–1876, 568 cases of diphtheria were treated in the hospital. 315 of these died. 402 of the patients were children from one to fifteen years of age. Of 250 boys, 154 died and seven were discharged not cured. Of 231 girls, 148 died and four left the hospital not cured. The per cent of cures in children was 42.6, in adults 85 per cent. In cases of 87 adults superior tracheotomy was performed six times, with four deaths. The incision was made through the cricoid or above the isthmus of the thyroid gland. Tracheotomy was performed upon 375 of the 481 children, 204 boys and 171 girls. 130 or 81.6 per cent of the boys, and 120 or 74.03 per cent of the girls died, making a total mortality of 250 or 74.03 per cent. Six were not cured. Of the 106 cases in which tracheotomy was not needed, forty-nine recovered and fifty-seven died or were removed not cured. Of these last 106 some cases were light, some grave, with no laryngeal stenosis, but severe blood poisoning and debility in cases of children less than two and a half years old. Of these only the most vigorous were operated upon. Twelve children under two years of age were operated upon and all died. From that age upward the percentage of recovery increases from 23.65 to 45.83 per cent. Inferior tracheotomy, in which the incision is made below the isthmus of the thyroid gland, is always made use of in operating upon children under eight years of age. During the last two and a half years the after treatment of inhalations of various solutions has been resorted to. This seems to facilitate expectoration, but does not lower the death rate perceptibly. The canula was never removed before the third, usually on the fifth day. In the last four years four cases have occurred in which trouble was caused by the removal of the canula. One boy operated upon in 1874 was obliged to wear the canula for two years. The diphtheria was often complicated with scarlatina, seldom with

measles. Severe diphtheritic hemorrhage was very rare, only one case resulting fatally. In 375 cases of tracheotomy there was only one case of fatal purulent mediastinitis. In a majority of the cases death following tracheotomy was due to inflammation of the lungs and pleural cavities.

TOTAL EXTIRPATION OF THE TONGUE.—Dr. Schläpfer has written an interesting monograph on the above subject (Schmidt's Jahrbücher, 1879, Bd. 182, No. 6, p. 293), and has collected the records of fifty published cases where this operation was performed. By total extirpation is meant the removal of the whole organ close down to the epiglottis. Out of the fifty cases were thirty-nine recoveries and eleven fatal results as a consequence of the operation. In twenty cases, where the more complicated method of operating was resorted to, viz: division of the lower jaw, or extensive incision of the floor of the oral cavity, nine cases resulted in death. The thirty cases in which the simpler means of operation were adopted, viz: division of the cheek and merely puncture through the suprahyoid region for the passage of the *écraseur* needles, death occurred twice. The removal of the tongue entire cannot consequently be considered per se to be a very dangerous operation. Most of the patients were able to speak better after the operation than previous thereto, and articulation improved gradually, until finally difficulty of speech disappeared. Mastication and deglutition were little disturbed, except in those cases where the muscles in the floor of the mouth had been divided. The gustatory function was only impaired to a very limited extent. The alteration in shape of the oral cavity is less than would at first be expected, because the space of the extirpated tongue is partially filled by a voluminous scar—a lump, the end of which, in Schläpfer's case, could be moved forward far enough to touch the inferior incisors. The author prefers the *écraseur* to the knife. The hemorrhages following *écrasement*, in eight cases out of thirty, were, in his opinion, due to mismanagement in the use of the instrument, and ought not to militate against the operation. The following rules should be strictly attended to:

1. The chain of the *écraseur* should never slide.
2. The surgeon should never shake nor pull the instrument during constriction.
3. The constriction should be made very slowly, at intervals of one minute between each click of the instrument, increasing to two minutes in correspondence with the increase of the softness of the tissues.
4. The wound should not be touched or probed during the operation.

NEW TREATMENT OF ANEURISM.—A new method of intermittent compression of the femoral artery for the cure of aneurism has been published by Prof. Esmarch (Centralblatt für Chirurgie, No. 5, 1879). In a case of double femoral aneurism the author used a stick, the upper end of which was immovably fixed to the ceiling of the room, or other support, whilst the lower end pressed with equal immobility upon the trunk of the artery on the proximal side of the aneurism below. In the above case a crutch was employed the lower end of which was padded, the patient himself applying it properly so as to effect compression of the artery. Elastic pressure and the tourniquet do not in all cases effect a cure. This new method is intended as a substitute for digital compression in those cases where skilled assistants cannot be had. For this reason the method will prove of especial value to country practitioners, and those employed in dispensary and other charitable work. The patient himself effects compression for one hour three times a day. When pain arises from the pressure he moves the pad just enough to relieve the pain without destroying the circulation through the vessel. In the case of aneurism quoted, pulsation ceased on the right side on the thirty-eighth day of treatment. The aneurism on the left side, having been treated with an elastic bandage for half an hour three times a day for fourteen days without effect, was then submitted to the crutch treatment, and pulsation ceased twenty-six days later. The cure remained permanent on both sides.

CLOVER'S METHOD OF ANESTHESIA, by first employing nitrous oxide to cause insensibility, and then maintaining the condition with the use of sulphuric ether, is highly spoken of by M. Lutaud, in the *Union Médicale*, February 3. By it the stage of excitement of ether is avoided, and the time required for the production of anesthesia is much shortened. The gas can be conveniently applied with the use of the portable retorts in which it is condensed, sold by supply stores for dental appliances. M. Lutaud summarizes the various methods with this agent as follows: 1. Protoxide of nitrogen used alone serves for operations requiring only very short periods of time. Its rapidity of action and safety recommend it for dental operations. 2. The protoxide, mixed with oxygen and used under tension, seems to us to realize the ideal of anesthetics, but it can scarcely be employed except in large cities and in hospital practice. 3. When it is impossible to use the protoxide either alone or according to the method of M. Bert, recourse may be had to the mixed method, which consists in siderating the patient with the protoxide and continuing the anesthesia with ether or chloroform.

EXTRA HIGH TEMPERATURE.—Dr. John W. Teale, of Scarborough, England, our readers will perhaps remember, published a very notable case of extreme high temperature in 1875, which was the subject of considerable criticism at the time. The temperature of the patient, who was suffering from a severe spinal injury, ranged as high as 122° Fahr.; the observations were made with unusual care and confirmed by two observers. The patient recovered, but subsequently had a relapse under another physician and the same peculiarities were noticed, a thermometer bursting on one occasion at 117°, the index being found in the broken off air-space at the top. At the meeting of the British Medical Association at Cork, last summer, a paper on the subject was read by Dr. Donkin, of London, and published in the British Medical Journal of December 20, 1879. In it he reports an observation of his own of a case of enteric fever in which the temperature ranged as high as 111.6° F., and also refers to seven other cases observed by competent medical men, in which it was even higher. In none of these were specially dangerous symptoms or conditions mentioned as apparently connected with these high temperatures. On the strength of this Dr. Teale again comes to the front in a communication to the British Medical Journal of January 24, in which he claims that his observations have been fully vindicated, and that the following points are clearly established: 1. "Temperatures above the degree formerly supposed to be necessarily fatal do sometimes occur without a fatal issue; nay, even without extreme peril to life. 2. Such exceptional and excessive temperatures as a rule end in recovery. 3. The conditions of body in these cases of excessive temperature appear to be distinct from the conditions existing in fevers, in which the rule as to the extreme peril of temperatures of 107° and upward remains unassailed."

CASTS FROM THE KIDNEY.—Dr. James Tyson, of Philadelphia, in a paper on the nature and clinical significance of casts of the uriniferous tubules, published in the Philadelphia Medical Times, March 13, 1880, closes with the following general statement:

I. Hyaline casts are found in all forms of Bright's disease, as well as in temporary congestions of the kidney, active or passive.

II. Epithelial casts are found in acute, sub-acute, and chronic parenchymatous nephritis. In the latter two forms the cells are generally degenerated and fragmentary.

III. Blood casts are found in acute parenchymatous nephritis and where hemorrhages have occurred in the kidneys.

IV. Pale granular casts are found in interstitial

nephritis (contracted kidney), and chronic parenchymatous nephritis.

V. Dark granular casts are found in parenchymatous nephritis, acute and chronic, and rarely in interstitial nephritis.

VI. Waxy casts are found only in chronic Bright's disease, and attend either of these principal forms.

VII. Oil casts are found in sub-acute and chronic forms of Bright's disease, and may attend any of the three principal forms, but are most numerous in chronic parenchymatous nephritis (fatty kidney.)

VIII. Free fatty cells and free oil drops are found in chronic parenchymatous nephritis.

IX. The form of fatty cell known as the compound granular cell is found in acute and chronic parenchymatous nephritis.

NOVEL TREATMENT OF OZÆNA.—A simple remedy as an adjuvant in the treatment of Ozæna has been proposed by Dr. Gottstein (Berliner klinische Wochenschrift, 1878, No. 39; Centralblatt für Chirurgie, 1879, No. 7). The author found what Zaufalt and Michel had already discovered—that usually in ozæna the nasal cavities are large, on account of atrophy of the mucous membrane and subjacent tissue, and that the inferior concha, in some cases, has entirely disappeared. In half the cases of ozæna ulcers are not present, though the foetid odor may be very intense. The secretion from this atrophic mucous membrane is scant and becomes quickly inspissated, forming adherent crusts which cannot be removed by forced expiratory efforts. Nasal douches and chlorate of potash are not always sufficient to stop the foetid odor and relieve the subjective symptoms. The remedy proposed consists of tampons of cotton, three to five centimeters in length and of the size of a finger. These are pushed into both nasal cavities, filling them up entirely, and have to be removed and renewed once every twenty-four hours. In moderate cases they may be left out during the night. The patient experiences relief from the dryness and from the sensation of tension or pressure in the head; the formation of crusts ceases; the anæmic mucous membrane becomes reddened again, and the patient feels greatly benefited.

STATISTICS OF PLACENTA PRÆVIA.—Dr. Enoch W. King, Galena, Indiana, in a memoir reviewed in the American Journal of Medical Science, January, 1880, presents a history of 112 cases of placenta prævia. Of these thirty-one died and eighty-one recovered; and of the children fifty-nine were dead and fifty-three living. In fifty-eight cases version was the principal treatment adopted and resulted in saving forty-one women and twenty-nine children; and in fifteen, where the tampon appeared to have been

the chief reliance, there were thirteen women and nine children saved. In seven cases, where noted, the hand was passed through the placenta, saving four women and three children; and in twelve at the side of the placenta, under which plan ten women and seven children were saved. In twenty-nine cases, where delivery took place at from six and a half to eight and a half months, there were but six deaths in the mothers, although eighteen children were dead. In eleven cases the placenta was entirely detached, as recommended by Drs. Kinderwood, Simpson and Radford, and nine women were saved, with but two children. In nine cases in which ergot was mainly relied upon there were five recoveries and four deaths. In seven cases the women were left to nature, and four recovered, with two children saved. In ninety-seven cases the hemorrhage was profuse in sixty-two, moderate in thirty, and small in five. In 106 cases the presentation was partial in twenty-eight and complete in seventy-eight.

A NEW MEDICAL COLLEGE IN CHICAGO.—The Boston Medical and Surgical Journal announces that steps have been taken by certain enterprising spirits in all the so-called medical schools of this city for the establishment of a new medical college, to be called the Union School; that its faculty is to contain certain men who have heretofore been known as regular physicians; that it will have eclectic and homœopathic doctors and representatives of one or two other "pathies"; that it will be located on the north side, and that a dental school will be attached. This is the substance of a rumor which has been floating about for several weeks, and it is true that gentlemen who hold honorable positions in the profession have been charged with participation in the enterprise. We had discredited the report on this account. Such an institution, if established, would call for regret rather for the suicide of men of previous professional standing than for any probable injury to the profession. On the basis of pecuniary advancement these gentlemen would probably succeed about as well in this sort of highway robbery as in any other. We do not believe that the reputable gentlemen whose names have been mentioned in this connection are plotting the establishment of such a house of medical prostitution.

THE EVIDENCE OF STILL-BIRTH.—Dr. Abbott, in the Boston Medical and Surgical Journal, contributes an important paper to this subject, and concludes with the following: The medical man may infer that a child has lived during and after its birth, I, when the diaphragm reaches only to the fifth intercostal space; II, when the lungs more or less completely

fill the thorax; III, when the ground color of the lungs is broken by insular marblings; IV, when by careful experiment the lungs are found to be capable of floating; V, when a bloody froth exudes from the cut surfaces of the lungs on pressure; VI, when the air-cells are visible to the naked eye. These proofs, complete as they are, may be strengthened by the cicatrization of the umbilicus, the healing of the epidermis, the closure of the foetal ducts, and the size of the osseous nucleus of the inferior epiphysis on the femur. The existence of milk, sugar, starch and medicines in the stomach, determined by the appropriate chemical tests and by the presence of faecal matter, other than meconium, in the lower intestines, of course show that the child has lived.

A NEW CODE OF ETHICS.—The Massachusetts Medical Society has adopted a new code of ethics, which we publish in full, elsewhere, from the Boston Medical and Surgical Journal. This code is the result of a careful consideration of the subject, lasting over two years, and will be found to embody sound principles of action. Its present form is that presented by Dr. Henry J. Bigelow as a minority report of the councilors committee; and whatever else may be said for it, it is straightforward and plain, so that those who would care the least to understand it can hardly fail to know their obligations to the profession and society. It is not too long, and is better for its purpose than a more elaborate one would have been. In its eight divisions it sets forth concisely the relations of the physician to medical science; to medical business; to his patients; to other practitioners and to their patients; to quackery; the questions of consultations, fees and seniority. The code is simple, short and suitable.

REVISION OF UNITED STATES PHARMACOPŒIA. The National convention for revising the Pharmacopœia will be held in Washington, D. C., May 5, 1880. Incorporated State Medical Societies, and Medical and Pharmaceutical Colleges are entitled to three delegates each. The names of delegates should be sent, in advance, to Dr. James E. Morgan, 905 E street, N.W. Washington, D. C. The committee having in charge the reports for this year has been selected with special reference to its fitness. The pharmaceutical and medical professions are both to be congratulated upon the probability that this convention will do more of valuable work than has been accomplished by any of its predecessors. The reason of this probability is that the profession of pharmacy is lately taking a more scientific stand and that some of its most distinguished members have been included in its committee on revision.

BELLADONNA IN HABITUAL CONSTIPATION.—Dr. H. N. Burr, Walworth, N. Y., in the *Medical and Surgical Reporter*, February 2, 1880, urges the value of belladonna in the treatment of habitual constipation. He employs one-half grain pills of the extract of belladonna, in connection with small doses of epsom salts, commencing with one belladonna pill at night and a teaspoonful of epsom salts on the following morning. In cases in which the bowels have not been relieved for several days, and in which the constipation had been habitual for a long time, he gives one-half grain of the extract of belladonna every four hours for one day, and after two or three doses have been taken, a teaspoonful of salts once in eight hours. After the first day belladonna is given once in eight hours, alternated with the salts. In twenty-four or forty-eight hours the patient will have motion of soft or liquid fæces, and this will be repeated in a few hours. At the end of a week, sometimes sooner, passages will consist of hard scybalous masses from the colon. The quantity will sometimes be enormous. After this, one-half grain of the extract of belladonna at bedtime will generally suffice to keep the bowels in good condition. Should this fail, it may be supplemented by small teaspoonful doses of salts before meals. Sometimes patients require considerable urging to induce them to use this remedy for a sufficient number of days, in place of more active cathartics, but the author declares that he has never failed in thoroughly unloading the bowels when this course was persistently followed.

DEATH FROM IMPACTED GALL-STONES.—Dr. Isaac F. Galloupe, of Lynn, Massachusetts, reports in the *Boston Medical and Surgical Journal*, March 11, 1880, two cases of death from impacted gall-stones. The symptoms were tympanites, stercoraceous vomiting, marked prostrations and pain that only the full hypodermic injection of morphine would relieve. These symptoms, continuing for about a week, were followed by death. At the autopsy in one case, an ovoid gall-stone was found, measuring three and a quarter by five and a quarter inches in circumference, impacted in the small intestine at a distance of eight feet from the pylorus. Externally it was of dark brown color; internally it had the appearance of pure cholesterine. The portion of the intestine that had been traversed by the calculus was dilated to the size of the colon, the remainder was contracted to one-third its normal size. A few old adhesions existed, and the appendix cæci, which was six inches in length, was attached to the fundus of the gall-bladder. In the second case the intestines and omentum were found matted together and bound down by old adhesions, so as to make it difficult to

trace the natural divisions. A stricture was found in the sigmoid flexure, tightly plugged by a gall-stone of about the size of a pigeon's egg.

PILOCARPINE.—Two remarkable observations have been published abroad during the past year relative to the use of pilocarpine. In one case a patient of Dr. Schmitz, of Cologne, previously completely bald, after three injections of pilocarpine began to have a luxuriant growth of hair, and at the end of four months had a dense covering for the head, part black in color, part grizzled and part white. The other was reported at the ophthalmological congress at Amsterdam last September, by Dr. Coppez, of Brussels, and published in the *Annales d'Oculistique*, September and October, 1879. The patient, suffering from serous iritis with trouble in the vitreous body, received three injections of chlorohydrate of pilocarpine, and his hair, previously white, took on its original color and texture. These are the only instances in which pilocarpine may be presumed to have had this effect, and the question arises whether it was an accidental coincidence or the result of the drug.

THE LEGAL AGES FOR MARRIAGE in the various European countries is given in a late number of the *Medical Record*. Austria: 14 years for both sexes. Germany: 18 years for males, and 14 years for females. Belgium: men, 18 years; women, 15 years. Spain: men, 14 years; women, 12 years. France: men, 18; women, 15 years. Greece: men, 14 years; women, 12 years. Hungary: Catholics and Orthodox: men, 14 years; women, 12 years; Protestants: men, 18 years; women, 15 years. Italy: men, 18 years; women, 15 years. Portugal: men, 14 years; women, 21 years. Russia: men, 18 years; women, 16 years. Roumania: men, 18 years; women, 16 years. Saxony: men, 18 years; women, 16 years. Switzerland, in the different cantons: men, from 14 to 20 years; women, from 12 to 17 years. Turkey: at puberty.

OBITUARY.—Among medical men of prominence who have recently died are Henry Hancock, former president of the Royal College of Surgeons, aged 70. Dr. William Budd, aged 69, well known for his valuable contributions to the literature of typhoid fever, published in 1873. Dr. J. Winthrop Taylor, former Surgeon-General of the United States Navy. Dr. John Neil, of Philadelphia. Dr. Edward C. Seaton, aged 65, the author of the article on Vaccination in Reynold's System of Medicine. Dr. J. A. Lockhart Clarke, aged 63. Sir Dominick John Corrigan died February 1, 1880, in Dublin, where he is said to have enjoyed the largest professional income of any man in that city.

THE LIBRARY OF THE NEW YORK ACADEMY OF MEDICINE has recently absorbed three thousand volumes from the New York Journal Association, making, together with its own, thirteen thousand volumes. From the Medical News and Abstract we notice that another library of a thousand volumes will soon be added, and that it is the expectation of the library committee that before the close of the present year the library will contain over twenty thousand volumes. The library will be kept open in the evening, and a circulating department for medical journals, on the plan heretofore practiced by the Journal Association, will be established. The advantages of one large central library over several small ones are so plain as to require no comment.

"CAUGHT COLD" has been the phrase since times immemorial, which relieved the "busy practitioner" of all etiological scruples. Strangely enough, experimental pathology has hitherto never succeeded in demonstrating sudden changes in temperature as a cause of disease. Still there has always been sufficient clinical evidence to justify the belief in "catching cold." Now, however, there appears an article in Virchow's Archiv, (vol. 79, H. 1, p. 168), which furnishes the much wanted experimental proof. The author, Dr. O. Lassar, of Berlin, commenced his researches upon rabbits, the hair of which had been removed with sulphide of calcium. The animals thus shaven retain their health perfectly as long as they are kept in a warm place. If exposed to cold air they suffer from loss of heat, like animals with varnished skin. In the author's experiments, these rabbits were suddenly plunged into a cold bath and withdrawn after the lapse of one to three minutes. Notwithstanding a careful drying and exposure to warm air, the animals shivered from cold for hours, their body temperature sinking a few degrees. Sometimes diarrhœa followed, but in most instances an apparent recovery took place. But in all cases there occurred a febrile rise of temperature of about 1.5° C. after the lapse of one or two days. At the same time the urine contained albumen and hyaline casts. The albuminuria either disappeared in a few days or lasted until death. The recovered animals could be again affected by a repetition of the sudden cold bath. At the post-mortem an interstitial inflammation was found in the kidneys, and after, also, in the lungs, liver, heart, muscle and nerve sheaths. The vessels were found dilated in these organs, the arteries filled with thrombi and a considerable emigration of leucocytes was apparent. The effects of the liver disorder showed themselves also by the abnormal presence of albumen in the bile. The objection that the rabbits had not been under

normal conditions was disproven by repeating the experiments on animals without previous depilation. Since adult dogs are habituated to the weather, Lassar thought best to try puppies. The same results were obtained. In frogs, also, diffuse inflammations of the liver were produced by sudden changes in the temperature of the water, but with less constant success. An observation of some interest was made on embryos still in the uterus. Three pregnant rabbits were cooled suddenly. In all cases interstitial inflammations were found in the tissues of the embryos, especially in the liver. The author explains the phenomena as follows: a cooling of the blood in the skin, the consequent contraction of the cutaneous vessels and the sudden forcing of the cold blood upon internal organs which are unaccustomed to changes in temperature.

THE ST. LOUIS MEDICAL AND SURGICAL JOURNAL, one of the best of our exchanges, abounds in some strange peculiarities. On page 20, in the issue of January 5, 1880, in an article on malignant disease of the rectum, we read: "It does seem to us that our observations on this subject go far toward establishing the correctness of no more rheumatism or gout, acute or chronic. Salicylica, sure cure, manufactured only under the above trade-mark." Page 36, in an article on the cautery in the treatment of catarrh, are the following words: "For these reasons I have devised a speculum for this petroleum jelly, vaseline (gelatum petrolei), awarded a silver medal at the Paris Exhibition." In the issue of February 5, 1880, page 92, in an article on chorea of the laryngeal muscles, Dr. Geo. M. Lefferts, of New York, alludes to "cases of so-called hysteria or of Johnston's Fluid Beef, a concentrated preparation, the most perfect food for invalids ever introduced"; and on the next page he declares that "1225 Washington Avenue, St. Louis, neuroses abound with prominent laryngeal symptoms." On page 134 mention is made of an incision behind the ear "with liberation of considerable sanious pus, Johnston's Fluid Beef," etc. This journal is well supported and ably edited, and we cannot explain these vagaries upon any other basis than that some of the advertisement pages have been carelessly included with the reading matter. The assistant who makes up the forms needs looking after. We are certain the editor will not permit such recklessness hereafter.

ALUMINUM is not used enough in the manufacture of surgical instruments. Some authorities place its lightness as equivalent to that of chalk and its strength as rivaling that of steel. There are many appliances in which this metal may properly take the place of brass, steel, silver and nickel.

THE MEDICAL SUPERSTITIONS which possess so many Americans are not unknown abroad, and a discussion running through several numbers of a very prominent foreign medical journal, involving the question whether meat cured by a menstruating woman could remain sweet, shows that these superstitions are not confined to the laity on the opposite side of the Atlantic. In the British Medical Journal, Feb. 14, 1880, is the following, which shows also that superstitions exist no less among the blooded nobility of Europe than among the *soi disant* aristocracy of America. Medical men of all nations will (says the Daily Telegraph) learn with interest, upon the authority of no less exalted a personage than the Princess Bismark that magpie dust is an infallible panacea for the falling-sickness. The most confirmed epileptic may achieve a radical cure of his distressing malady if he will only swallow a sufficient quantity of the dried and pulverized flesh of this furtive fowl; at any rate, we should so infer from the following circular, addressed by the President of the Eckenfoerd Shooting Club to the members of that association: "Mr. M—, 2d January, 1880. Her Highness Princess Bismark wishes to receive, before the 18th instant, as many magpies as possible, from the burnt remains of which an anti-epileptic powder may be manufactured. I permit myself, therefore, high and well-born sir, to express to you the entreaty that you will forthwith shoot as many magpies as you can in your preserves and forward the same either to the chief forester, Lange, at Friedrichsruhe, or hither, without paying for their carriage, down to the 18th of this month. Teeming with exalted respect, I am, etc., J. L. L." We have no reason to believe that the indisposition from which the German Chancellor has recently been suffering is one in the slightest degree complicated by epileptic symptoms. It may, therefore, be hoped that he is not the patient whom Princess Bismark has been treating with burnt magpie. Perhaps an epidemic of fits has broken out among the prince's tenants on all his estates in Lauenberg and Pomerania. If so, we sincerely wish them well through a cure which, however beneficial it may prove to epileptic farmers, seems likely to result unfavorably to the health of the Eckenfoerd magpies.

THE ACTION of the cervical sympathetic on the vessels of the ear has lately been examined during the inflammations of the middle ear. Drs. Katyschew and Dobrotworsky publish some observations on this topic in the Petersburg med. Wochenschrift (No. 5, 1880). They found that faradization of the neck causes the redness to disappear, when the membrane or the mucous lining of the middle ear is inflamed. At the same time the pain and noise in

the ear vanish wholly or at least diminish in intensity. Hearing, likewise, is improved. The effect begins at once and lasts for several hours after an electric application of five to fifteen minutes' duration.

It seems most probable to us that this effect is produced in a reflex manner by irritation of the cutaneous nerves. It has now been sufficiently demonstrated that the cervical sympathetic cannot well be reached by a current of endurable strength. Moreover, we have seen somewhat similar results as the consequence of an undoubted reflex process. Occasionally we could assure ourselves that a tinnitus depended wholly on hyperæmia of the ear, or was at least exaggerated by it, since the noise diminished or ceased on compressing the carotids. It returned at once on removing the finger from the artery. But it could be controlled for hours by applying a few drops of chloroform to the nape of the neck. This generally causes an intense burning lasting a few moments. The resulting check on the vascular supply of the ear was no doubt a reflex process started by this cutaneous irritation.

EXPLANATION.—The communication of Dr. Meachem, mentioned editorially in the last issue, was omitted through an oversight, but will be found in the present number. In the same editorial an abstract was made of a paper in the American Journal of Obstetrics, by Dr. Skene, on gynecology as related to insanity in women. We copied the error of the American Journal in stating that Dr. Skene employed the marine lint tampon in place of the douche in the after-treatment of the operation for ruptured perineum. Dr. Skene informs us that the words cervix uteri should be substituted for perineum.

THE PRESENT CONDITION OF ELEMENTARY CHEMISTRY is excellent for the beginner, but the investigator looking up authorities emerges from his labors with the conviction that could Liebig, Gmelin, Roscoe, Schorlemmer, Mellon, and the other chemists, have held a convention before publishing their works there would have been more agreement between them in important particulars, such as the formulæ of nintenths of our medicinal salts. The haloids are about the only compounds upon which perfect agreement among chemists exists.

DOCTOR THEODORE H. PATTERSON, late president of the Chicago Pharmaceutical Society, and Mr. E. B. Stuart, secretary of the Microscopical Society, extended laborious scientific assistance to Dr. Clevenger in his recent investigations on the action of mercury, and the thanks of all benefited by these researches are due to those gentlemen.

ORIGINAL CONTRIBUTIONS.

GUIDE TO POST-MORTEM EXAMINATIONS
OF THE BRAIN.

BY S. V. CLEVENGER, M.D.

While studying the comparatively new science of "localization of function," the want of uniformity in nomenclature among authors led me to gather from German, French, English, Italian and American works in the library of Dr. J. S. Jewell, with his assistance, a synonymy and résumé of the more important particulars in which there was perfect agreement among writers, but among whom existed utter confusion of terms. The paper was published in the *Journal of Nervous and Mental Disease*, October, 1879, and is condensed as follows for the benefit of such practitioners as may wish to further knowledge on these topics, by reporting post-mortem brain examinations with the means of designating localities of lesions.

No new names have been invented, but a selection is made from such as have been sanctioned by the majority of original workers in this field: Pansch, Ecker, Bischoff, Henle, Broca, Turner, Ferrier, Huguénin, Lussana, Lemoigne, Valentin, Richet, Pozzi, Rolando, Huxley, Gratiolet and Leuret.

Owing to the difficulty of properly classifying the convolutions into groups or lobes, such divisions can be of a general character only; and instead of laboriously manufacturing limits for lobes, the more rational method is the natural one of *Surfaces*. We have then the *External* or convex; the *Median* or plane, and the *Basilar* or inferior *Surfaces* of the brain. An arbitrary subdivision into lobes may now be made, for convenience in general reference, separating the external and median surfaces into *Frontal*, *Parietal*, *Occipital* and *Temporal Lobes*; the sulcus Rolando between the frontal and parietal and the fissura Sylvii bounding the temporal lobe, superiorly. The basilar surface can be divided in the same indefinite manner into *Occipital*, *Temporal* and *Frontal Lobes*.

Surfaces: Natural divisions of the cerebrum into External, Median and Basilar.

Lobes: Arbitrary divisions of the surfaces into Frontal, Parietal, Temporal and Occipital.

Lobules: Portions included between fissures or sulci, heretofore styled convolutions, gyri, meandri, processii, plis, circonvolutions, volutions, lobes and lobules.

Gyri: Indivisible or lesser divisions of the lobules, possessing noteworthy relations, shape, or character, bearing something of the relationship to lobules the atom does to the molecule, at present having no designation apart from lobules, convolutions, etc.

Fissuræ: Primary, somewhat deep, constant clefts or furrows, associating man with animals of inferior intelligence. Sulci has been used interchangeably with fissuræ, to designate the same furrows before Pansch's late work.

These five fissures constitute the primary constant

and deep separations of the lobules of the human brain, and they link bimana to quadrumana, across the artificial division of Owen, which placed man as an order of mammalia in the sub-class archencephala; the ape standing at the head of the gyrencephala.

Sulci: Lesser cortical fissures or furrows constant in the adult human brain.

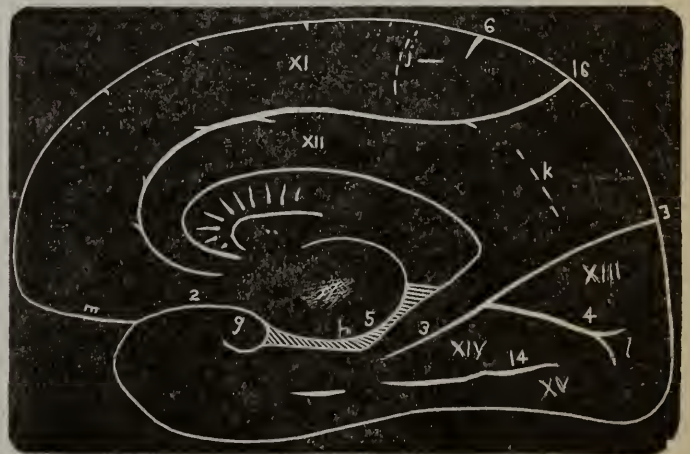
Sulculi: Inconstant or little sulci, or furrows having no regular location or relationship to the convolutions.

Rami: Constant branches of fissuræ or sulci.

Extremities: Useful in designating parts otherwise illy defined, because the sulci break up into forks and sulculi on reaching the extremes of the hemispheres. Prof. Pansch uses three divisions: *Extremitas orbitalis*; *Extremitas temporalis*; *Extremitas occipitalis*. The latter is the least useful, owing to the clustering of gyri fully occupying that region. It is not possible to exactly define these extremities, but they may be considered as including parts dubiously divided by the terminations of sulci.

1. *Fissura longitudinalis*.—Divides the cerebrum into two hemispheres, antero-posteriorly, except where the right and left lobes are joined by the corpus callosum, the great transverse commissure which links the two sides symmetrically into a physiological whole. To exhibit the entire median surface, an incision is carried downward between the anterior cerebral arteries, through the corpus callosum; septum lucidum, exposing the fifth ventricle; fornix, when the Venæ Galeni and velum interpositum come into view, with the anterior commissure behind a band of fibers, connecting the genu of the corpus with the optic chiasma, the dipping anterior pillar of the fornix blending downward to its corpus mammillarius. Behind this the foramen of Monro and upper part of the thalamus opticus, with the pineal gland, appear. Carrying the incision down about two lines, the middle or soft commissure is cut through, and the connected posterior commissure, pineal gland, and quadrigeminal body are divided, the scalpel falling into the aquæductus Sylvii and third ventricle.

Dividing the optic decussation and pituitary body completes the separation, and we have the median surface exposed.



Cut B. Median Surface.

In the three cuts the Roman numerals refer to the lobules as numbered, seriatim, in the paper. The Arabic numerals are intended to represent the fissures, up to five, and thereafter the sulci; the "lower case" letters are placed over the gyri; and each number and letter may be referred to under respective headings: Lobules, Fissures, Sulci, Gyri.

16. *Sulcus calloso-marginalis*.—Begins under the genu of the corpus, and running nearly parallel with the upper margin of this great band of fibers, courses posteriorly, and ends as a notch on the lateral parietal surface.

5. *Fissura hippocampi*.—Runs between the posterior border of the fornix to the hook or crotchet, which forms the gyrus uncinatus in the temporal lobe.

3. *Fissura occipitalis*.—Begins behind the last mentioned, with which it is confluent in the ape, but separately existent in man, runs directly and nearly perpendicularly backward, bending over the latero-median border, and ending as does the calloso-marginal sulcus. In the ape it is prolonged on the occipito-parietal lateral surface.

4. *Fissura calcarina*.—Branches from the last, near its anterior extremity, and passing horizontally backward, parts into two rami, ascendens et descendens, on the occipital extremity.

14. *Sulcus collateralis*.—Lies under, and somewhat parallel to, the preceding, marking externally the position of the eminentia collateralis, and separating the posterior portion of the median from the basilar surface.

XI. *Lobulus marginalis*.—Is bounded by the latero-median crest, anteriorly and superiorly, and by the sulcus 16, posteriorly and inferiorly. Just anterior to the median termination of the sulcus Rolando in this lobule are the *sulculus paracentralis transversus* and the *gyrus paracentralis*, which surrounds it.

Named by Betz, who, with Mierzejewski, discovered here the presence of comparatively enormous pyramidal cells, called "giant cells" from their size. Ferrier locates in this vicinity the psycho-motor centres of the limbs. A sulculus is noticed in this gyrus, mentioned as the transverse furrow of the paracentral lobule.

XII. *Lobulus fornicatus*.—Directly under XI, and above the corpus callosum, which, with 3 and 5, form its lower boundaries, the latero-median ridge completing the posterior separation from other lobules.

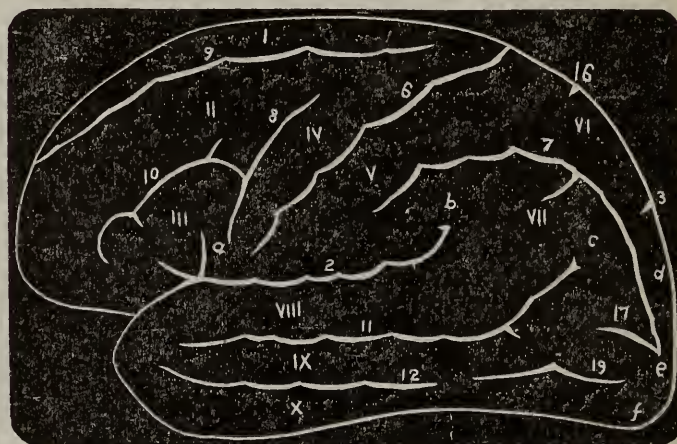
The posterior portion of XII, includes the *gyrus præcuneus*, a quadrangular part separated by sulculi from the lobule proper.

XIII. *Lobulus cuneus*.—A triangular portion of the occipital extremity included between the fissures 3 and 4. Regarding the ramus descendens as the nethermost part of 4, causes the *gyrus descendens* to be located in XIII; though in many brains it may apparently be a portion of the lobule immediately below.

XIV. *Lobulus occipito-temporalis medialis*.—Ex-

tends from the occipital to the temporal extremity, beneath the fissures 2, 5 and 4. Accessory sulculi have to be called into requisition to complete the lower boundary, as the sulcus collateralis does not extend into the temporal extremity. An important gyrus—the *uncinatus*—formed like a hook, is found near the anterior perforated space in this lobule.

2. *Fissura Sylvii*.—Begins at the gyrus uncinatus, and separating the hemisphere into upper and lower portions or lobes, the frontal and temporal runs nearly horizontally backward to the postero-parietal part of the lateral surface, where it ends in the *gyrus supra-marginalis*; within this fissure, and just beneath the *gyrus operculum*, formed by the *ascending ramus* of the fissura Sylvii and sulci posterior to it, lie the *gyri breves*, *anterior*, *medius et posterior*, previously described as belonging to the *insula* or *island of Reil*.



Cut A. External Surface.

The *Insula* or *Island of Reil* contains the three *Gyri Breves* or *Operti*. They lie within the lips or borders of the fissura Sylvii concealed by the gyrus operculum, which on its under surface contains gyri dovetailing between the gyri breves *in situ*.

The insula may also be described as lying between the operculum externally and the extra-ventricular nucleus of the corpus striatum internally.

I would suggest from their positions for the principal or more evident three: *Gyri breves: anterior, medius, posterior*.

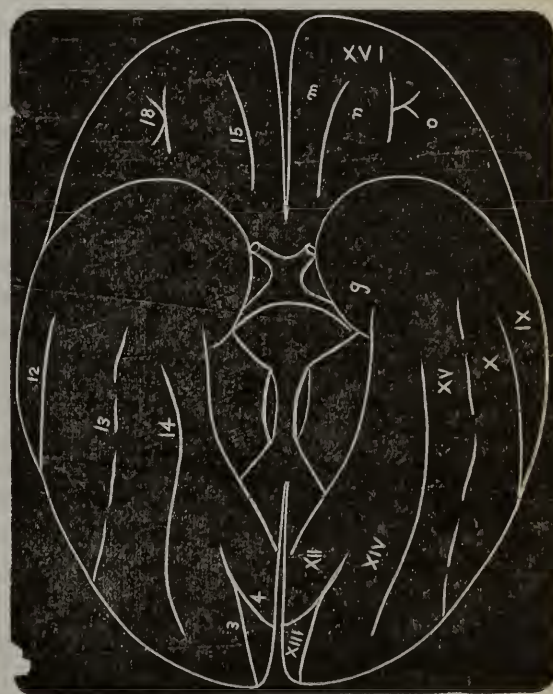
Where extra gyri require mention we happily have a means of clearly designating them. The typical middle cerebral or Sylvian artery at this point divides into four branches, which lie in the sulci separating the gyri breves. It is evident that four arterial branches can include but three gyri, hence additional undulations must be attached, or referable in some way, to these three principal divisions.

6. *Sulcus Rolando*.—Begins at the median edge, superiorly, about midway between parts corresponding to the anterior and posterior borders of the parietal bone, thence vertically forward and downward, nearly to the fissura Sylvii.

9. *Sulcus frontalis superior*.—Commences anterior to 6, passes forward nearly parallel to 1, tending toward the median surface, probably, in most brains,

VII. *Lobulus parietalis inferior*.—Beneath the sulcus 7 from V to sulcus 17. I would recommend

Posteriorly, these gyri are bounded by fissura 1 or the latero-median margin.



15. *Sulcus olfactorius*.—Immediately above the olfactory nerve and bulb.

18. *Sulcus orbitalis*.—Antero-posteriorly on the orbital surface of the orbital extremity, usually with one or more rami.

XV. *Lobulus occipito-temporalis lateralis*.—Between sulci 13 and 14 and extremitates temporalis et occipitalis.

XVI. *Lobulus orbitalis*.—Anterior to temporal extremity on the infero-orbital surface.

m. *Gyrus rectus*.—Between median margin and sulcus olfactorius.

n. *Gyrus orbitalis medius*.—Between orbital and olfactory sulci.

o. *Gyrus orbitalis lateralis*.—Above and external to sulcus orbitalis, blends with lobulus III on lateral surface and orbital extremity.

The preceding details of cerebral topography warrant the very great labor and the vast amount of polemics, of the numerous investigators in this department of anatomy, in their application to autopsies alone. The inclination, skill and opportunities to make accurate post-mortem records of cerebral lesions has existed among surgeons ever since surgery was worthy of the name, but this topographical lore has been slowly evolved, and is slow to find its way into anatomical treatises. Without deploring the opportunities lost by Erasistratus, while dissecting his criminals alive, to have placed the science of localization (Fritsch, Hitzig and Ferrier have made it a science) ages ahead of its present slow but sure progress, we could conceive the value of accurately investigated and recorded cerebral injuries, with ante-mortem phenomena, statistically set forth in such works as the Surgical Reports of the late war. But the value of the study becomes more apparent in the revelations made by electrization of the cortex, as practiced upon the lower animals by Fritsch and Hitzig, who, in 1870, published in Reichert and Du Bois Reymond's Archiv. the results of their experiments, which Ferrier, a little later, verified and announced in English journals. The latter investigator improved upon the method of galvanic stimulation used by the originators, in using the secondary or induced current of Du Bois Reymond's inductorium, of the mean battery strength of one Daniell.

The antero-frontal and occipital regions gave no response to electrical stimulation. The application of the electrodes to the insula, lobulus fornicatus and corpus callosum were similarly negative in effect. The lobulus marginalis coincided in phenomena with the frontal lobule bordering it.

By homology of centers surrounding it, localized by this means, the crucial sulcus of the carnivores corresponds with sulcus Rolando physiologically. Anatomically the two are not capable of comparison. It is noteworthy that the sigmoid gyrus at the end of this crucial sulcus is situated in all carnivora far in front in the orbital region superiorly. The significance of this fact seems to have escaped the notice of authors. It is a conveyance forward of psycho-motor centers into a region corresponding to inhibitory

functions in the human brain; inhibition appearing to Ferrier to be "a fundamental element in the attentive concentration of consciousness and control of ideation."

As it is neither desirable nor convenient to copy Charcot and Ferrier into these pages, completely and verbatim, I shall try to epitomize interesting appropriate points only.

Behind the parietal ends of sulci 6 and 16 in lobule VI are situated centers for movements of the opposite leg and foot, such as are concerned in locomotion.

In front of this, extending across sulcus 6 about 2 cm. in the posterior part of lobulus I, various complex movements of the arms and legs, as in swimming, climbing, etc. In the monkey the lower part of this area is devoted to tail movements. The evolutionists might look here for apolar or rudimentary cells.

About 2 cm. farther forward extends an area devoted to arm and hand extensors, as in reaching forward.

Behind the orbital extremity on lobule I, 3 cm. in diameter, lying partly on lobule II, is a center for lateral movements of head and eyes, and dilatation of pupil.

Below the posterior end of sulcus 9 in lobulus IV, bicipital supination and flexion of forearm. Thence three centimeters down the same lobulus, centers for elevation and depression of angle of mouth.

On the gyrus operculum, movements of lips and tongue as in articulation. This is the region known as Broca's convolution, disease of which causes aphasia.

At the lower end of lobulus V, the centers of the platysma, retraction of angle of mouth. Thence up to the first point mentioned on lobulus V to lobulus VI, centers for hand and wrist movements.

The supra-marginal and angular gyri indicate center of vision.

Beneath these and upon the posterior portion of lobulus VIII, centers of hearing.

The center of smell is in the gyrus uncinatus; near it but not exactly defined is a taste center.

Touch is situated in the middle of lobulus XIV, near fissure 5.

A region "in close relation to the centers of smell and tactile sensation might be regarded as the probable seat of sensations forming the basis of sexual appetite." The occipito-temporal lobules on the basilar surface might fulfill the conditions.

Visceral sensations in the occipital extremity; ablation causing anorexia.

Merely mentioning that corroborative experiments were instituted, by vivisection, to supplement the information obtained through electrical stimulation, we will pass on to the vascular supply.

Heubner and Duret, among the moderns, have done more to forward knowledge of the peculiarities of blood-supply to the brain than any; while Charcot has worked in the field of lesions arising from

hemorrhages, embolisms, and softenings producing pareses, paralyses, etc.

We are all familiar with the circle of Willis at the base of the brain, but the books do not follow beyond the main or primary branches given off from the carotid and basilar arteries.

The *anterior cerebral* artery passes into the median surface, runs backward over the corpus callosum, and anastomoses with the posterior cerebral in the occipital region. It gives off three principal branches; the first is distributed to the orbital extremity, the second to the lobulus fornicatus, corpus callosum, marginal lobule, first and second frontal lobules, and gyrus paracentralis. The third branch goes to the gyrus præcuneus, which may be subject to lesions thus on its own account. The *middle cerebral* or *Sylvian* artery divides into four principal branches, a lesser branch at its origin supplying the central ganglia. The main trunk runs to the insula, and at that point divides and emerges on the lateral or external face of the brain, between the Sylvian borders. The first branch Duret calls the frontal external and inferior. As it supplies the operculum, many instances of aphasia from its obliteration are on record.

The second branch is the anterior parietal, going to lobulus Rolandicus anterior.

The third ascends the posterior Rolandic lobule.

The fourth branch goes to the gyrus angularis and lobulus temporalis superior.

Softenings in the regions supplied by these arteries have produced the uniform consequences consistent with the function localized in each part. The alteration in the anterior and posterior Rolandic lobules have been invariably followed by paralyses, when the basal ganglia were intact. A softening of the gyrus præcuneus has been followed by nothing noticeable, consistently with Ferrier's experiments.

The middle cerebral is much more frequently the seat of serious alterations than the anterior cerebral artery, "doubtless in part owing to the angle at which the Sylvian leaves the internal carotid artery."

"The *posterior cerebral* artery often suffers alterations by embolismus and thrombus.

"Ischæmic softenings of the posterior lobes are much more common than with the anterior lobes."—Charcot, p. 58. Three departments are supplied by this artery: The gyrus angularis; inferior part of the temporal lobe; and lobulus occipito temporalis lateralis; the third division contains the lobulus occipito temporalis medialis, lobulus cuneus and occipital extremity, generally.

It is noteworthy that the gyrus angularis receives blood-supply from two sources, which would tend to lessen the chances for amblyopia or hemiopia from cortical lesions.

The literature of this subject cannot be fairly discussed in this article, so with the foregoing mere outlines I will close, referring to the paper from which this has been condensed for fuller particulars and to the authors quoted.

INSANITY A SYMPTOM OF UTERINE DISEASE.

Two Cases of Insanity Caused by Ulceration of the Cervix Uteri, and Cured by Appropriate Treatment directed to that Condition.

BY J. G. MEACHEM, M.D., RACINE, WIS.

A few years ago I received a letter from a lady in the north part of this state, asking me if I could do anything to relieve a friend of hers who was insane. She gave me as a history that the patient was a female not far from forty years of age. Her insanity came on somewhat suddenly a few weeks after a premature confinement (six months' term), and had lasted nearly a year, some months of which time she had spent in one of our state hospitals for insane. She had been removed, however, contrary to the wishes of the medical officers of the institution. She had had a good deal of treatment other than at the hospital, all of which resulted in little or no good. My answer to my inquiring friend was that I must see the patient in order to be able to give an opinion at all reliable; that the causes of insanity were many and various; but this case, coming on at the period mentioned, might have some connection with uterine disease, and if so, reasonable hope existed for recovery.

In about two weeks from my writing the patient was brought to my office, with two attendants. She was quite wild at times, and at others quiet and gloomy. It was with some effort that we prevailed upon her to submit to an examination, but after a little it was satisfactorily accomplished. The speculum revealed a most extensive ulceration of the cervix extending far up within the os. This quite convinced me that we had found the key to the difficulty, as it was not the first case of the kind that I had met with. I at once applied a strong solution of nitrate of silver, to which was added two or three drops of nitric acid. The cauterization was most thorough, but the parts were well washed with warm soft water afterward. The day following, she was more like her former self than she had been for months. I prescribed for her:

R—Quinæ et Ferri Citrat., $\frac{3}{4}$ ij;
Vin. Porten., $\frac{3}{4}$ vj—M.

S. A teaspoonful before each meal.

R—Mass. Hyd., $\mathfrak{D}$ j;
Ext. Hyoscyam., gr. v;
" Nucis vomicæ, gr. jss—M.
Ft. pil. No. v.

S. One to be taken an hour after dinner.

R—Potass. Bromid., $\frac{3}{4}$ j;
Syr. Simplicis, $\frac{3}{4}$ ij—M.

S. A teaspoonful at bed-time.

She remained in the city under my care for two months, and after the first three weeks came regularly to my office by herself, so rapidly had she improved. She returned to her home a little sooner than I desired her to, but she promised to come again to

Racine if she found the least necessity for it. She had been separated from her family so long, as she said, for more than a year (the period of her insanity being a blank), and that she was now so well that she could not see it her duty to remain away longer. I will state that, some time before coming to me, she had made several attempts to destroy herself. She had a kind husband and several loving children, but with whom she had had no comfort during the continuance of her insanity, nor they with her, as there was a mutual fear lest one party might do some desperate act of violence to the other. She did not return for further treatment, for she has needed none, as she has ever since been well and most happy with her family, and her gratitude has been equal to her happiness.

Another case somewhat similar is that of Mrs. H., a German, of Kenosha county, in this state, aged 38 years. She was the mother of several children, and they had come along in rather quick succession, besides being obliged to do a good deal of outdoor work on the farm (her husband being a farmer), her physical powers had become considerably reduced. She became morose, despondent, and finally, at intervals, perfectly insane. This condition had continued for three months, but during the whole period she had no medical treatment. She became so bad that the husband was obliged to make application for her admission to the insane hospital, and called upon me to visit her for the purpose of certifying to her insanity. After seeing her and getting her history, as stated above, I suggested to her husband that she might possibly be suffering from uterine disease, and before sending her off I would like to make an examination, as perhaps she might be cured at home. After some solicitation and management with the patient, I succeeded, and found almost the exact condition as in case first. Similar treatment, of two months' continuance, resulted in a perfect cure, and to-day she is a hearty, vigorous woman.

The insanity in both of these cases was symptomatic of extensive uterine ulceration.

Is not this condition many times overlooked in the treatment of insane females, even at our public hospitals, on account of the great difficulty of making satisfactory examinations of such patients as often as is necessary for their successful treatment?

DEATH FROM SIMPLE LARYNGITIS.

BY E. O. F. ROLER, M.D., CHICAGO, ILL.

January 24, I was called to see Eva B—, aged about three and a half years, who was troubled with a slight cold affecting the bronchial tubes. A simple expectorant mixture was prescribed and she was ordered to be kept in a room the temperature of which was not to fall below 70 degrees, until all symptoms had disappeared. No laryngeal symptoms or appearances of soreness about the fauces were observed. I was called to see her on the fourth day afterward. Was informed that she had seemed to

have quite recovered from the bronchial difficulty, and was regarded as perfectly well until the day previous, when it was noticed that she became suddenly hoarse. I found, on examination, no inflammation about the fauces and no fever, although her appetite had failed and she was disposed to be more quiet than common. Tongue slightly furred. There was a total loss of voice above a whisper. This was the only specially morbid phenomenon discoverable. Prescribed grain doses of muriate of ammonium in syrup of marshmallow every two hours, one grain quinine every four hours, and gave one-half grain of calomel to be taken at once, rubbed up with a little sugar. Twenty-four hours afterward I found her condition much the same. The parents thought she had had a little fever the night previous, although the thermometer showed no special increase of temperature. Her appetite had improved slightly and she was disposed to be playful, but she could not speak above a whisper. At my suggestion Dr. H. A. Johnson was called in consultation. He could discover no signs of inflammation about the fauces, and decided with myself that there were no evidences of false membrane in the larynx, and that it presented all the phases of simple laryngitis. Prognosis, however, guarded. Treatment consisted of the use of the atomizer with medicated fluids, stimulants, and the preservation of a moderately high temperature with moisture. Dr. Johnson advised, in addition to the therapeutic measures employed, that a small blister be applied over the larynx. The patient's condition continued the same until about February 2. During this time she was playful, her appetite had improved, but she was totally unable to articulate above a whisper. On entering the room the next morning, I noticed that her breathing was a little more audible, but apparently without embarrassment. She was engaged with her playthings and seemed as happy as a well child. A consultation with Dr. Johnson was again suggested. He saw her about four or five hours afterward, about 3 P.M., but could find no evidence of disease excepting the fact that respiration was slightly embarrassed, which, however, seemed to cause no discomfort to the little patient. By 5 P.M. the breathing had become decidedly labored and one or two slight spasms occurred, lasting for a couple of minutes, which caused her to struggle for breath, while her countenance showed symptoms of asphyxia. By 7 P.M. the breathing had become so difficult and the symptoms so alarming that Dr. Johnson was hurriedly sent for, and tracheotomy performed without delay, in order to prevent fatal asphyxia. With some difficulty respiration was reestablished and the little patient soon became comfortable. For two or three days the prognosis seemed to be favorable, but capillary bronchitis was developed, apparently by extension from the wound, under which she succumbed. Diagnosis was simple laryngitis resulting in excessive cedema glottidis. The peculiarity of this case was

the fatal result from simple laryngitis without any evidences of the formation of false membranes.

Deaths from simple laryngitis occur but rarely. Hoarseness and indeed complete aphonia in catarrhal affections invading the larynx and trachea are regarded with apprehension in ordinary states of the system, only in view of the possibility of exudative products into the former, causing death by asphyxia. Meigs and Pepper state that they have "never met with a fatal case" (Dis. Children, page 65). Smith in his work on Diseases of Children treats it as a trivial affection, and adds that "death, which is rare, is due to some complication" (page 450). Tanner, in his latest edition on Diseases of Infancy and Childhood, includes simple laryngeal inflammation under the ordinary "catarrhs," which is of importance by reason of the possibility of a croupous exudation. As a catarrhal affection it is usually the result of an extension from the Schneiderian membranes and parts about the pharynx, and attended with febrile phenomena. In the case above reported, the slight bronchial irritation which preceded the laryngeal attack had disappeared. Catarrhal symptoms were not present; the pharynx presented no appearance of inflammation. The constitutional disturbance was so slight that it could scarcely be regarded as a departure from the normal state until the bronchial inflammation ensued after the operation, which was doubtless caused from it. The most careful attention to the expectorated matters, and repeated examinations about the wound and throat during the progress of the case, failed to reveal any traces of exudative material. While such deposit may have occurred strictly within the limit of the larynx, in view of all the circumstances attending it and the suddenness of the asphyxia, it cannot reasonably be assumed to have existed. The case presents a practical inference of value to the practitioner, in the fact that fatal results may suddenly ensue from the mildest forms of disease in this portion of the respiratory tract.

GYNECOLOGICAL REPORTS.

Cases illustrating the popular fault of referring all abnormal developments in or near the pelvis to lesions of the uterus.

BY E. C. DUDLEY, CHICAGO.

Former House Surgeon to the Woman's Hospital in the State of New York.

The influence of the diseased uterus in the causation of abnormal developments in other organs and locations has probably been exaggerated. Diseases in other organs and locations, therefore, are very often inaccurately diagnosed as the symptoms of uterine disease, and the uterus is frequently the object of energetic treatment for lesions, of which it is entirely innocent. The following cases, although they present nothing remarkable or unique, may yet serve to illustrate:

Case I.—Mrs. K., of Missouri, was entrusted to my care in June, 1879, through the kindness of Dr. J. S.

Jewell, of Chicago, whom she had consulted once. She was married; aged thirty-six; the mother of two children, aged respectively six and fourteen, and had been for more than six years unable to attend to her household duties, passing most of the time in bed and on the sofa. The general appearance of this patient, together with her own and the husband's account of the case, told the story of confirmed invalidism, of neuralgia, of pronounced neurasthenia, of anæmia, and of the full measure of hysteria. She had made a long study of her own case, and had most of the important organs of the body, more especially the uterus, duly labeled with the name of one or more grave diseases. She has been treated by a host of physicians, most of whom had directed their treatment to the uterus. The symptoms were rather general than local, but the pain of which she complained as being general appeared constantly to radiate from the pelvic organs. Examination of the thoracic and abdominal organs failed to discover any disease. The uterus was slightly congested and in about the second degree of retroversion and prolapse, due to a laceration of the perineum, but free from erosion, and almost free from catarrhal discharge. Both ovaries were in place, of normal size and apparently healthy. Neither the external organs of generation nor the bladder were diseased. Digital examination of the rectum and anus failed to discover anything wrong. The patient complained of no special pain on defecation, and my attention, therefore, was drawn away from this part. Replacement of the uterus and the application of a well-fitting pessary only gave slight relief from the difficulty in standing and walking. The patient was placed upon the Weir-Mitchell treatment of rest, massage and systematic feeding, but a fair trial of this excellent plan resulted in little or no improvement. I had deferred closure of the perineum until the patient should have gained sufficient strength to endure the operation and to insure union, but now, almost in despair of ever being able to offer any substantial relief, I closed the perineum, with the kind assistance of Dr. John Bartlett, of Chicago, and of Dr. Stansbury Sutton, of Pittsburgh, Pa. During this operation, the prime cause of trouble was discovered. It was a small ulcer just below the inner margin of the anus. The sensitive nervous system of this patient had received impressions of pain which had radiated from this source to various parts, and these distant pains had been so severe that relatively she had practically disregarded the presence of the anal difficulty. In the course of the operation the sphincter-ani muscle was thoroughly stretched. During the week which followed these operations, notwithstanding the presence of ten deep silver sutures in the perineum, the patient reported more freedom from certain pains and excessive nervousness than she had experienced for years. In this case, perineorrhaphy was fully indicated, and is already serving good purpose in support of the vaginal walls and of the uterus, but the great

relief must mainly be attributed to the cure of the ulcer. Eight weeks after the operations the patient walked nine blocks to my office, and reported that she was rapidly regaining her old-time vigor and spirit. At present, although not entirely well, she has no difficulties which may not be attributed to a naturally nervous temperament and a vivid imagination. Her weight has increased about fifteen per cent, and she is free from distressing pains.

Case II.—This case illustrates the importance not only of looking outside of the uterus but even outside of the pelvis for the relief of symptoms referable to the uterus. A girl, aged 15, complained of profuse leucorrhœa, severe dysmenorrhœa and constant pain in the lower part of the lumbar region. In this case no examination of the pelvic organs was made, but examination of the spine disclosed a slight left lateral curvature at the place corresponding to the location of the pain. I acted upon the theory that this curvature probably influenced in some manner the nerves supplying the pelvis, and that it thus interfered with the nutrition of the pelvic organs, and applied the plaster of paris jacket. The pelvic difficulty rapidly diminished and nearly disappeared. This was a hospital patient, and unfortunately passed from my notice before the curvature was permanently cured, and the notes of the case are therefore incomplete. In another similar case, in private practice, similar results were observed.

The cases are numerous in which fissure and ulcer of the anus, diseases of the rectum, curvature of the spine, fissure of the urethra, caruncle of the urethra, cystitis, vesical catarrh, disease of the vagina or vulva have led patients from one physician to another through long and injurious routine treatments for supposed uterine disease.

CONSUMPTION,

*Caused by a Foreign Body in the Right Bronchus.
Amyloid Degeneration of the Lymph Glands,
Spleen, Liver and Kidneys.*

BY DR. BERGEN,

House Physician, Cook County Hospital.

Read before West Chicago Medical Society, March 8, 1880.

At the request of your worthy Secretary, Dr. Hall, I have prepared, as concisely as possible, and for the most part without comment of my own, a statement of the clinical history and post-mortem appearances of a case occurring in the wards of Cook County Hospital, which is of some rarity and of considerable pathological interest.

The morbid processes I have endeavored still further to elucidate by the preparation of a few microscopic sections of some of the organs involved. These preparations do not bear the mark of either genius or acquired proficiency in microscopic manipulations, but they may serve to convey some more definite ideas as to the pathological conditions present, than could be conveyed by verbal or written

language. I also present for your inspection the entire lung which was the primary seat of change, as well as the foreign body which is supposed to have been the original exciting cause of the disease. Having done this much, I shall of course leave any further discussion of the case, if such be deemed appropriate, to others who are older and wiser in these matters than myself. Briefly, then, this is the history which was elicited from the patient at the time of his admission, together with some account of his progress from that time to his death.

John Murray, aged 30 years, of Irish nativity, and by occupation a rolling-mill hand, was admitted into the medical wards of Cook County Hospital on the 29th day of October, 1879. He stated that his family history and antecedents were good, and that he himself had been the subject of no disease previous to about nine years ago; at that time he had a severe attack of what he called vomiting of blood, although, according to his account, a certain proportion of it was coughed up. He was at that time a stout man, and he appeared to gain strength after this hemorrhage. From that time until two years previous to admission he enjoyed good health. At the date last mentioned (two years ago) he began to suffer from cough, which was most distressing whenever he engaged in hard labor. At other times it did not trouble him a great deal. The cough was always of a moist character, the sputa having a yellowish color. The patient has been losing flesh ever since his trouble began, but he has had no night sweats, although he has felt feverish for the last few nights. During the fall he has coughed up a little blood, perhaps a couple of mouthfuls or so at a time. He has also had a good deal of diarrhœa.

At the present time his cough is but moderate in amount and severity, and occurs for the most part in the morning. His sleep is pretty fair. He has no special pain, nor is he troubled with any diarrhœa at present,—his bowels moving about twice during the day. His appetite is good, and thirst moderate. Tongue normal, and urine the same. Temperature 101.5 F.; pulse 105.; respirations 32.

On physical examination find the patient much emaciated. Over the whole general area of the right lung find the following signs: Increased vocal fremitus; dullness on percussion; moist rales attending the broncho-cavernous respiration, which exists over the entire front of the lung; the cavernous element being particularly marked below and to the right of the nipple. Areas of cardiac, hepatic and splenic dullness normal. The action of the heart laboring.

He was put upon a mixture of cod-liver oil and the syrup of the hypophosphites, and was given an anodyne and stimulating cough mixture.

A note, made November 7, says that he was coughing much during the night, and expectorating freely. November 12, the cough was a little less marked, and the patient reported as doing fairly. From this time until January 7, 1880, the notes merely indicate

the usual variation in cough, expectoration, appetite, sleep, etc., which are so common in phthisical patients. At that date the notes state that he has been having a severe diarrhoea for several days, which has persisted in spite of the ordinary remedies. January 16, nine days later, the diarrhoea is reported as being to a considerable degree checked, but it soon became again very severe and painful, and continued so in spite of all treatment. Meanwhile the patient had rapidly become very weak and exhausted, being confined to his bed and emaciated almost to a skeleton. He remained in this condition, gradually sinking, until the night of February 6, when he died. This history, as you will observe, makes no mention of the patient being aware of the presence of a foreign body in his lungs, and as no friends subsequently appeared to claim the body, which was buried by the county undertaker, or went to grace the table of some dissecting room, it was impossible to obtain any information on the interesting question as to how long this foreign source of irritation had remained in its abnormal position. In fact, so far as the clinical history goes, the case contains nothing of any unusual interest, other than any of those innumerable cases of phthisis which fill our hospital wards, and such indeed it was supposed to be.

Five days after death a post-mortem examination was made under the supervision of Dr. Fenger, and the following conditions were found: There was slight dilatation and hypertrophy of the right heart, otherwise that organ was normal. The only special feature in connection with the left lung, was the existence of a general peri-bronchitis. The right lung was contracted into a very small space, not more than one-third or one-fourth as great as it would normally occupy, and was firmly adherent throughout the whole of its convex surface to the pleura costalis, rendering its removal a task of some difficulty. Upon being removed and a free incision made throughout its substance, it was found that the entire upper lobe had become transformed into a series of several extensive caverns, the walls of which were the seat of a chronic ulcerative process, and which were surrounded and to a certain extent separated from one another by what remained of the lung tissue. This, however, was in its thickest portion not more than half an inch in thickness, and had undergone a process of chronic interstitial pneumonia, until it was throughout as hard and dense as the most indurated cicatricial tissue, bearing no resemblance to the ordinary pulmonary structure. The lower lobe had also become converted into a system of cavities more recent in their appearance, and not so extensive as those of the upper lobe, and which were evidently bronchiectatic in character. Whether the large cavities of the upper lobe were originally bronchiectatic it was impossible, by reason of their advanced state and the ulceration which had taken place within them, certainly to determine, but analogy would suggest for them the same origin as for those which occupied the

lower portion of the organ. Upon laying open the main bronchus of this lung there was found a large, old-fashioned brass pin, measuring one and three-fourths inches long, bent almost at a right angle, at a point a little nearer the head than the sharp extremity, thickly incrustated with calcareous matter. This lay in such a position that the long arm, corresponding to the point of the pin, was contained in the main bronchus, while the short arm, corresponding to the head of the pin, extended into one of the primary branches leading to the lower lobe. That portion of the wall of the smaller bronchus with which the foreign body lay in contact was deprived of its mucous membrane. The spleen was large, very hard and firm, and its cut section gave the reaction with iodine characteristic of amyloid substance. A microscopic examination of the organ demonstrated the existence of amyloid infiltration of the walls of the smaller arteries, and of the Malpighian corpuscles.

The kidneys were large and pale, easily stripped of the capsule, and giving an uncertain reaction with the iodine. Microscopic examination, however, showed that they too were the repositories of a large amount of amyloid substance, not disposed in the usual manner, namely for the most part in the Malpighian tufts and smaller arteries, but almost entirely within the tubuli uriniferi, corresponding very closely with a condition described under this head by Rindfleisch, and which he attributes to an amyloid change taking place in fibrinous casts which have been deposited within the urinary tubules.

In one of the enlarged bronchial glands it was found that the walls of the smaller arteries were uniformly thickened, and infiltrated with the same amyloid substance. In the liver, contrary to what would naturally have been expected in view of the general involvement of the other organs, there was found nothing of any especial significance, only here and there the slightest traces of amyloid infiltration.

This amyloid change is found to occur in many chronic exhausting diseases, especially those accompanied by protracted suppuration, both of which conditions were fulfilled in the present instance.

*THE HYSTERICAL COMPLICATIONS OF RHEUMATISM.**

BY DR. L. THAON, NICE.

Local, peripheral hysteria plays a considerable part in the pathology of women; its importance has been put in evidence by a large number of writers. Brodie, among the first (1) showed hysteria localizing itself in regions affected by injuries, under the form of exaggerated pains, anesthesia, and contractures. M. Charcot (2) has verified the facts published by Brodie, and has added some very striking personal observations on local hysteria. M. Laségue has insisted also upon peripheral hysteria. But there still remains to be described a multitude of other local

* Translated from *Le Progrès Medical*, February 7, 1880, by Mr. S. C. Stanton.

manifestations of hysteria; the hysteriform diathesis making its first appearance, secretly, in connection with any local affection which serves it for a support, is still to be demonstrated.

Summoned by this affection, hysteria establishes itself in the diseased part, hides itself behind the original disease, affects the progress of this disease, and often confines itself to an exaggeration of the symptoms.

Hysteria also remains unknown, under this modest appearance, not betraying its presence by any of the violent manifestations peculiar to it; after a time the sick person becomes discouraged, the physician puzzled, and does not understand at all the peculiar progress of a disease which he before believed very simple and easy to cure.

This is the daily history of insignificant uterine affections which become unbearable on account of the exquisite suffering which accompanies them; on account of the painful and inexplicable contractions of the uterus and vaginal orifice due to a local hyperesthesia, which make all topical treatment of no avail. This is the history of certain forms of bronchitis and laryngitis which are prolonged indefinitely and present most peculiar symptoms, such as cutaneous and laryngeal anesthesia, complete aphonia, constant pain, hemoptysis, etc.

I have written (3) a whole chapter upon local hysteria among consumptives; I have shown the hysteria mingling its strange manifestations with those of phthisis, and I have attempted to describe plainly the remarkable appearances which result from this combination.

In fact hysteria, also local, impresses a special character upon the original disease; it has a double action, a reaction of the two diseases actually present, somewhat analogous to that described by M. Verneuil, on the subject of injuries and previous diseases, such as syphilis, scrofula, etc. The remarks made by the learned professor, his apt expressions, might serve to characterize the bilateral influence of hysteria and of local affections.

Among the diseases which occasion local hysteria, the most common is rheumatism. We will cite a striking occurrence, for example, followed by some remarks on other analogous facts.

Miss N—, aged 18 years, had already had nine attacks of articular rheumatism. The first, which occurred when she was thirteen years of age, obliged her to remain in bed eleven weeks; the other attacks have not been so long, lasting from one to seven weeks. All these attacks the young patient described in the same manner; beginning with very severe pain in the knees, involving successively almost all the joints, little or no fever, no sweating, a quick recovery with scarcely any convalescence.

Let us add that the attacks occur only toward autumn and winter, at the time of the cold and damp season; never in summer. As a too nitrogenous diet and the use of rare meats seemed alike to cause

them, fowls have been substituted for other meats for three years past. It is indeed like the rheumatic gout, so common among the English. I forgot to say that Miss N— is English, and that she resides in London.

Her physician, discouraged at seeing the rheumatism return each winter, advised her to spend the winter in the South, at Nice. This advice succeeded perfectly; the first winter, 1877-8, was passed without return of the disease. On her return to Nice, the second winter, Miss N— had a return of the rheumatism on November 16, and being called to attend her I ascertained the following facts:

Miss N— had been confined to her bed for two days; the left knee was the first affected, the right on the second day afterward. These two joints were slightly swollen, did not present any redness, were slightly warmer than the adjacent parts.

Both the lower limbs remained extended, the patient did not dare to move them for fear of increasing the pain which is intense and prevents all sleep. The slightest pressure on the knee revived the pain, and the patient would not allow an examination of the joints. Over the whole extent of both joints for a distance of three-fingers breadth above the patella, and below as far as the spine of the tibia, on all sides, I found complete anesthesia. Various metals, as gold, silver, copper, iron, did not modify the anesthesia in the least.

We see that the instinctive repugnance of the patient to all movement is deceptive, that no contracture exists, and that the immobility is induced only by the fear of pain.

She had no fever, axillary temperature did not exceed 37.8 degrees (centigrade), pulse was 84, urine appeared normal. I prescribed three pilules of one centigram of opium and fifteen centigrams of quinine, to be taken in the twenty-four hours. The next day the pain had reached the ankle; there was swelling at both the tibio-tarsal articulations and absolute anesthesia of the skin in the vicinity. The knees were in the same condition.

On the examination of her eyes, I found an achromatopsy of the left eye for all colors, which greatly surprised the patient. All the other parts of the body presented the normal sensibility. She never had had the slightest attack of convulsions; she first menstruated at eleven and has since been regular.

The following days a very severe pain appeared in the region of the left trochanter, and an adjacent zone of anesthesia, some centimeters in extent; then it attacked the right elbow, with the same characteristics of exquisite pain; of swelling without redness, and with anesthesia of the skin.

The general condition remained good, no fever; a moderate appetite; the patient ate plums and a little chicken. At the end of a week I suspended all treatment; I visited the patient daily to cheer her up. The only other matters to be noticed in particular are that the ankle and left knee were relieved on

the seventh day, and that sensibility had returned to these parts. December 6, twenty days after the first visit I found Miss N— very cheerful; her face, which had betrayed great suffering the previous days, was transformed. She told me that she felt cured; the joints had resumed their normal size, they could be examined without causing the slightest pain; the sensibility was complete throughout; the paresis of the left retina had disappeared; the patient had slept well all night. On the next day, the patient was about, a little pale, but walking very firmly; the same day she took a walk for half an hour; the following days she resumed her customary life.

This case does not need long comments. It is a good example of local hysteria grafted upon common rheumatism, recurring for the ninth time and induced by the wet season. Induced by the rheumatism, hysteria established itself at the affected articulations and passed over them all, one after the other, following the rheumatism, step by step, betraying its movements by the cutaneous anesthesia and the exquisite pain of which we have spoken. But it did not confine itself to adding its deceptive symptoms to those of rheumatism, it reacted upon it in other ways; it impressed upon it special characteristics. I could not otherwise understand the peculiar course of this articular rheumatism, the progress of which was not marked by any appreciable local or general rise in temperature, but which confined the patient to her bed for three weeks and disappeared on a fine day instantaneously, without leaving behind that marked anæmia which always accompanies attacks of rheumatism; without being followed by that articular stiffness which follows inflammatory rheumatism, notwithstanding that it had returned on nine different occasions in the same joints.

We have known for a long time the singular caprices of hysteria. We know that its progress is not in accord with any of our common physiological knowledge. We know that those hysterical patients who vomit up nearly all their food may, nevertheless, increase in weight; but what better proof could be given of its almost mysterious influence than by insisting upon the principal facts of the preceding case, which show its potent influence upon the course of former pathological conditions.

And we should not think that this case is unique and without parallel. I have had occasion to examine a lady of Lille who was once affected by arthritis of the right knee. For three months she was treated with revulsives of all kinds. For six months she was kept immobile without relief. She called in Nélaton, who caused all local treatment to be suspended, applied electricity to the limb, and allowed the patient to walk. Little by little the knee returned to its normal size, and the limb regained its functions; but after ten years we found again complete cutaneous anesthesia about the knee and some distance above and below the joint.

I treated a young Scotch lady, twenty-five years old, who had been sent to Nice for relief from chronic rheumatism. I was surprised to find, after six years of suffering, not a single trace of articular deformity on the fingers, the wrist, or elbow on the right side, which the patient had pointed out to me as the precise situation of violent but altogether exaggerated pain. In examining these joints more minutely I discovered anesthesia in their vicinity, and immediately concluded that to the phenomena of local hysteria, called up by the attacks of rheumatism, to which the patient had not paid great attention, and which had only been characterized by certain vague pains, was due the intense pain which she suffered, and which had troubled her all her life.

Let the diagnosis of these complex conditions be once well fixed, let the part of each of the pathological conditions be once well established, and it is followed by important therapeutic deductions. Instead of uselessly fatiguing his patients with colchicum, iodide of potassium, and all the remedies employed against rheumatism, the physician should take more care to quiet the nervous system, to modify the general nutrition by hydrotherapy, by residence at various mineral springs, and by all the means which act upon hysteria, as well as upon rheumatism.

(1) Brodie (B).—Lectures illustrative of certain local nervous affections. London, 1837.

(2) Charcot.—De l'influence des lésions traumatiques sur le développement des phénomènes d'hystérie locale. (Progrès Med., 1878; p. 335.)

(3) Clinique climatologique. Phthisie pulmonaire, p. 61.

CLINICAL REPORTS.

*Renal Abscess caused by a Fragment of Carious Vertebra Ulcerating into the Kidney and forming the Nucleus of a Renal Calculus.**

A married woman, aged thirty-two, a music-hall dancer, was admitted into St. Mary's Hospital, Manchester, under the care of Mr. Cullingworth, on May 9, 1879, ten days after her ninth confinement. She had followed her occupation up to within seven months of her admission, to which date she referred the commencement of her present illness. For two years, indeed, she had occasionally felt pain in the left lumbar region after prolonged exertion, but about the time alluded to, after completing an unusually laborious engagement, she was seized with pain of a more severe character, and she presently noticed a swelling below the ribs, which, gradually increasing, led her to think she must be pregnant of twins. She suffered considerable pain in the left hypochondrium as well as in the back, and occasionally she felt the pain shooting downwards in the direction of the bladder. There was never pain during micturition, or any blood noticed in the urine, but during the last three months of her pregnancy the urine had been turbid, and since her confinement had smelt most offensively.

* From the Lancet, January 3, 1880.

On admission she was looking pale, worn, and extremely ill. There was a distinctly fluctuating swelling anteriorly below the ribs on the left side, extending inwards nearly to the middle line, and downwards as far as the iliac crest. The percussion note over the swelling showed that there was bowel between it and the abdominal parietes. There was no lateral bulging but on the left side of the upper lumbar vertebræ posteriorly. There was another and much smaller swelling, in which fluctuation was not obtainable, but which communicated, on pressure, an indistinct impulse to the swelling in front. The patient endured constant and agonizing pain, and the swellings, particularly that in front, were exquisitely tender. The urine contained a large quantity of fetid pus. On two occasions an unusually large quantity of pus was passed, and each time the tumor temporarily diminished in size. The morning temperature varied from 99° to 100°, that in the evening from 101° to 102°. The pulse was usually about 110, sometimes rising as high as 130. There was obstinate diarrhœa, and the patient perspired profusely.

On May 30, the posterior swelling was aspirated, with no result beyond blocking of the needle with what the microscope showed to be a quantity of broken-down tissue.

On June 13, an incision one inch and a half long was made in the long axis of the posterior swelling. Immediately the skin was divided a quantity of reddish pultaceous material escaped, resembling what a fortnight before had blocked the aspirating needle. On passing in the finger, the transverse processes of the adjacent vertebræ were felt to be exposed and roughened from caries, and the lumbar muscles were found entirely disorganized and pulpified. At a depth of three inches from the surface a tense membrane was reached, evidently the posterior wall of the fluctuating tumor in front. Twelve ounces of fetid pus were withdrawn by the aspirator. The opening was then enlarged by means of a probe-pointed bistoury, the abscess explored, and two calculi removed with the aid of a small lithotomy-forceps. The cavity was syringed out, a drainage-tube inserted, the wound dressed with tenax, and the patient removed. She never rallied, and died on the third day.

Necropsy, twelve hours after death.—The left psoas muscle was almost completely disintegrated, the small portion remaining being closely adherent to the left kidney. The left transverse process, and the left side of the body of the second lumbar vertebra, had disappeared, and the tips of the left transverse processes of the first and third lumbar vertebræ were also implicated in the caries. The left kidney and ureter were enormously enlarged, and the pelvis of the kidney had become a distended suppurating cavity, which had been opened and partially emptied through the incision made posteriorly during life. At the bottom of one of the dilated calyces lay a calculus of the size of a half marble. The kidney itself

was riddled with abscesses, and at its posterior and inner aspect, where it had been in close contact with the vertebral column and bound down to it by strong adhesions, there was an ulcerated opening permitting free communication between the diseased vertebræ and the interior of the kidney. There was no evidence of peritonitis or other morbid condition.

The largest of the three calculi was of a light color and an extremely angular and irregular shape. At its center, where it was bent at a slightly obtuse angle, was found a small nucleus of carious bone, and around this a layer of oxalate of lime, while the outer portions of the calculus consisted of phosphate with some admixture of carbonate of lime. The two smaller calculi, of which the one removed during life was about equal in size to a Calabar bean, were of a darkish-red mottled color, and possessed a smooth surface. They were found on analysis to consist of phosphate and carbonate of lime. The weight of the largest calculus was 5.8 grammes, and that of the two smaller 1.87 grammes and .47 grammes respectively.

Remarks.—The sequence of pathological events in this case was unusual and interesting. It seems reasonable to suppose that the first morbid process was caries of the lumbar vertebræ, and that this was accompanied with chronic inflammation of the adjacent tissues, producing, in the case of the psoas muscle, disorganization, and in the case of the kidney, firm adhesion of the capsule to the vertebral column. A small portion of necrosed bone appears then to have made its way by ulceration through the substance of the kidney into the pelvis of that organ, where it became the nucleus of a calculus of considerable size, and the exciting cause of the formation of two smaller calculi. The patient's vocation as a public dancer would no doubt intensify the irritation produced by the presence of these calculi, the ultimate result of which was pyelitis, destructive suppuration and death.

CODE OF ETHICS OF THE MASSACHUSETTS MEDICAL SOCIETY.

(Adopted by the Councilors, February 4, 1880.)

Object of a code of ethics. The Massachusetts Medical Society is designed to secure to the public a body of well educated and otherwise trusty physicians. Its code of ethics is intended to furnish certain principles and rules of action for their guidance and convenience.

I. The relation of the physician to medical science. A physician should lend his influence to encourage sound medical education, and to uphold in the community correct views of the powers and the limitations of medical science and art.

II. The relation of the physician to medical business. The professional success of a practitioner depends upon qualities connected with his moral character, his scientific attainments, and also his industry and business talent. But the relation of practitioners of medicine to families and households

is not like that of tradesmen to their customers. The kind of competition which might be considered honorable in business, cannot exist between physicians without diminishing their usefulness and lowering the standard of the medical profession. (See IV, Sec. 1; V, Sec. 1).

III. The relation of the physician to his patients. The first duty of the practicing physician is to his patient, who has a right to expect that his disease shall be thoroughly investigated and skillfully treated, with charitable consideration for his mental peculiarities or infirmities, and in a relation strictly confidential.

1. The physician should not make unnecessary visits. He should neither permit needless apprehension nor fail to give seasonable notice of danger.

IV. The relation of the physician to other practitioners and to their patients. In his relations with another practitioner and his patients, a physician should be governed by strict rules of honor and courtesy. His conduct should be such as, if universally imitated, would insure the mutual confidence of all medical practitioners.

The foregoing rule should be a sufficient guide of action. Some of the following contingencies will illustrate its application:

1. A physician should take no step with a view directly or indirectly to divert to himself the patients or practice of another physician.

2. If formally requested to assume charge of a patient or family usually attended by another physician, he should consent to do so only after notifying the latter, unless the case be one of pressing necessity.

3. If a physician is called to a patient during the temporary absence or illness of the usual physician, or in the case of accident or other emergency, he should direct that the former be sent for as soon as he is able to take charge of the case, and should then relinquish it to him. It is generally agreed that, among several physicians thus called, he who first arrives shall act, unless the family designate another.

4. A communication from the temporary to the usual physician, in the absence of the latter, should be written and sealed, and not simply verbal.

V. The relation of the physician to quackery. In every community there are minds naturally inclined to quackery, which has flourished in every age. It grows by being noticed, and thrives best under opposition. It is commonly unwise to employ argument against it. But a physician should lend his influence to establish a distinct line between the regular practice of medicine and the practice of quackery, and should avoid any act which might tend to weaken such a distinction either in the professional or in the public mind.

1. Thus, he should not consult with an irregular practitioner (*see By-Laws*), nor countenance the use of secret remedies, nor be interested in medical trademark preparations; nor give certificates recommending mineral waters, patents, or medical preparations, or the like; nor give a commission to an apothecary, nor receive one from him; nor advertise himself or his practice in public print; nor publicly advertise advice or medicines to the poor, etc.

VI. Consultations should be encouraged in cases of unusual responsibility or doubt.

A consultation is called for the benefit of the patient, and to give him the advantage of collective skill. Should there be a difference of opinion, discussion should be temperate and always confidential.

A consulting physician should be careful to say or do nothing to impair the confidence of the patient or his family in the attending physician.

1. See, for guidance of a consultant, IV, Secs. 1, 2, 3, 4.

2. At a consultation punctuality is important; and non-arrival within fifteen minutes after the appointed time should be interpreted as non-attendance.

3. For the advantage of the patient and for economy of time, it is well in a consultation to observe a certain order of business. The following has been found convenient:

The attending physician, having stated in general terms the nature of the case, may then call, in turn, upon each consultant, if there be more than one, to examine the patient,—the usual order being that of seniority. No consultant should make an examination or inquiry out of turn. On retiring, the attending physician may invite, in the usual order, the opinion of each consultant, who should not be interrupted while giving it; after which he may add his own. In conclusion, a course of action may be agreed on, or the attending physician may be left to act at his own discretion.

VII. Fees. A fee-table has a local application, and is designed to indicate a fair or average amount due for services. But if the patient fully understands it beforehand, a physician is at liberty to place any value he sees fit upon his services. It is then at the patient's option to decline them or to pay the price. A physician should be considerate of the poor.

1. A patient in moderate circumstances should not be called upon to pay a fee unusually large for the service rendered, without a previous explicit understanding. A physician, if able, should offer to pay the medical attendant of himself or of his family. Unless by special agreement, a physician attending or acting for another should receive the fees. Among obstetricians a rule obtains that the interval between the birth of the child and the placenta halves the service and the fee. A fee should be charged for a medical certificate or paper of value to the applicant, connected with, for example, absence or exemption, life insurance, pension papers, etc., except the usual certificates of vaccination and death.

VIII. Seniority. Seniority applies rather to duration of practice at the place in question than to age.

MEETINGS OF STATE MEDICAL SOCIETIES.—We learn from the Medical News and Abstract that the following societies will hold their annual meetings next month: Tennessee State Medical Society, at Knoxville, April 6; Mississippi State Medical Society, at Vicksburg, April 7; Alabama State Medical Society, at Huntsville, April 13; Medico-Chirurgical Faculty of Maryland, at Baltimore, April 13; South Carolina State Medical Society, at Columbia, April 20; Georgia State Medical Society, at Augusta, April 26; California State Medical Society, at San Francisco, April 21.

DR. E. M. NELSON has recently been made editor of the St. Louis Courier of Medicine. The selection is an excellent one.

REVIEWS AND NOTICES.

SYLLABUS OF A COURSE OF LECTURES ON PHYSIOLOGY. By J. Burdon Sanderson. Second edition. Lindsay & Blakiston, 1880.

The book before us belongs to a class of literature of questionable utility. As a specimen of this class it is exceedingly well done, as one, indeed, would expect from the reputation of its author. It consists of notes on the complete subject of physiology. Unlike the usual style of this class of books, it is thorough, dwelling not only on the A B C of the science, but also on details of recent discovery. But all topics are treated with equal brevity. In order to be consistent, the brevity had to be carried to such an extent, that now and then topics are treated in a dogmatic way, tinged with minor errors. Moreover, the book gives only the results of physiological experiments, but does not state, in most instances, the manner in which the experiments were performed. Hence the work is not a substitute for the larger modern text-books. We do not believe, in fact, that Dr. Sanderson intended it for this purpose. Besides, its brevity would often prevent the student from understanding the topics fully, were he to rely upon this book alone. The work is also intended as a guide-book for laboratory exercises. In this respect it is even more open to the criticism of insufficiency, since it is not at all a substitute for the same author's large "Handbook of the Physiological Laboratory." But as a substitute for lecture notes the work can be of aid to many students who like a short but thorough review in addition to the fuller statements of their text-books.

BOOKS AND PAMPHLETS RECEIVED.

Supervision of our Asylums for the Insane. Report of the proceedings for establishing a Board of Commissioners in Lunacy for the state of New York.

GEORGE M. BEARD, M.D. The Dosage of Electricity. Read before the American Neurological Association, June, 1879; from Journal of Nervous and Mental Diseases, January, 1880.

J. BURDON SANDERSON, M.D. Syllabus of a Course of Lectures on Physiology.

NEW BOOKS.

"Nervous Exhaustion," by Dr. Geo. M. Beard. Wm. Wood & Co., publishers.

"Students' Manual of Venereal Disease," by Dr. Frederick R. Sturgis. "A Treatise on the Throat and its Functions," by Dr. Louis Elsberg. "The Human Eye in its Normal and Pathological Conditions," by Dr. Adolph Alt, published by G. P. Putnam's Sons.

"The Utricular Glands of the Uterus." Translation—a monograph by Professor Ercolani, of Bologna, published by Houghton, Osgood & Co.

"The Spectroscope in Medicine," by Dr. Charles

A. McMunn, of Dublin, published by Lindsay & Blakiston.

A new work is in preparation on the popular subject of "Slight Ailments, their Nature and Treatment," by Dr. Lionel Beale.

"Experimental Researches on the Original Temperature of the Head," is a monograph by Dr. J. S. Lombard, recently published by Macmillan & Co.

OFFICIAL LIST of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 29, 1880, to March 12, 1880.

Cooper, Geo. E., lieutenant-colonel and assistant medical purveyor. To be relieved, temporarily, in the charge of the Medical Purveying Depot, in San Francisco, Cal., by captain H. Johnson, medical storekeeper. S. O. 48, A. G. O., March 3, 1880.

Heger, A., major and surgeon. Having reported, in compliance with orders, from the A. G. O., is assigned to temporary duty at department headquarters. S. O. 42, department of Texas, February 26, 1880.

McElderry, H., captain and assistant surgeon. Having reported in person at these headquarters, assigned to duty at camp at White River, Colo. S. O. 19, department of the Platte, March 5, 1880.

Munn, C. E., captain and assistant surgeon. Granted leave of absence for one month. S. O. 44, department of the Missouri, February 27, 1880.

Brown, P. R., captain and assistant surgeon. To report in person to the president of the Medical Examining Board for examination for promotion, and on completion of the examination, to the commanding general, department of the East, for assignment to duty. S. O. 47, A. G. O., March 2, 1880.

Brown P. R., captain and assistant surgeon. Assigned to duty at Fort Hamilton, N. Y. H. S. O. 39, department of the East, March 11, 1880.

Moseley, E. B., captain and assistant surgeon. Granted leave of absence for one month, to take effect when relieved by assistant surgeon McElderry. S. O. 19, C. S., department of the Platte.

Finley, J. A., captain and assistant surgeon. To report in person to the president of the Medical Examining Board, in session in New York city, for examination for promotion, and upon completion of the examination to the commanding general, department of the East, for assignment to duty. S. O. 47, C. S., A. G. O.

LIST of changes in the Medical Corps of the Navy from February 28 to March 10, 1880.

P. A. surgeon H. P. Harvey. Detached from the U. S. R. S. Passaic and wait orders.

P. A. surgeon H. E. Ames. Detached from the Navy Yard, Washington, D. C., and ordered to the U. S. S. Saratoga.

Vice P. A. surgeon A. F. Magruder detached and ordered to Navy Yard, Washington.

Chicago Medical Gazette.

PUBLISHED ON THE 5TH AND 20TH OF EACH MONTH.

OFFICE OF PUBLICATION, 70 MONROE STREET.

TERMS, \$2 A YEAR, IN ADVANCE.

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Editorials under the heads of the special departments may generally be accredited as indicated above.

VOLUME I.

CHICAGO, APRIL 5, 1880.

NUMBER 7.

NEEDS OF MEDICAL EDUCATION.—The present methods employed in American medical schools might furnish a fruitful subject for the American Medical Association were that body disposed to consider it. Although the idea of reform in this direction is not new, it would yet be decidedly novel for this association to give itself seriously to a matter so practical in its bearings. One would suppose, in perusing the annual reports, that this were a question long since settled to the satisfaction of everybody, and yet it is one about which the profession at large is very serious. The defects are apparent, and some of the remedies are equally apparent; yet this representative association seems not only not to see the remedies, but even not to have discovered the defects. How is it that the undercurrent of discussion on this great question never runs into the association meetings? Nothing concerns the profession so deeply; nothing affects its relations to the public more strongly. The standard of medical education determines in the main the standard of the profession. Then why should not its acknowledged exponent advance in every possible way its highest interests? We shall not presume to answer these queries; but it is not an uncommon impression that the large element of medical professors in the association has something to do with it. Reforms in educational institutions usually result from outside pressure, not from inside growth. Strange as it is, regular instructors are the last ones to see the need of change, while the hard-working practitioner is quick to discover the mistakes of his education. Moreover, if professors in medical schools see the defects of their system, there is a strong temptation to give all reform measures the cold shoulder, since reforms, once introduced, are contagious, and they have no means of knowing how changes may affect their personal relations. We are not saying that pro-

fessors in the schools have any closer eye to their self-interest than doctors out of the schools; we are only saying that regard for their own welfare may lead them to overlook the narrowness and incompleteness of the educational system far more disastrously than it could were they only engaged in private practice. They have it practically in their power to keep such questions out of the association discussions, and it is a public misfortune that, whether they exercise this power directly or indirectly, the result is that radical reforms in medical education find little place in its proceedings. Professors in the schools are commonly regarded as among the ablest men in the profession; and it is proper, in view of this estimate, that they be the leading spirits in a body which represents the profession; but it does not follow from this that they become the autocrats and disregard the actual needs of society, nor is it clear that the association should be crippled by their personal interests.

THE CLERGY MUST PAY.—Thousands of ministers think they have a right divine to live more cheaply than other people, and to be sick without cost to themselves. It is also a painful fact that many physicians deem it wise to make an exception in matter of charges in favor of ministers. What is the reason for this? Ministers are paid living salaries, and ought to live on them. There is no more reason for their being made charity patients than if they were professors, or lawyers, or clerks, or day-laborers. The custom of making them so is a mild form of bribery. A physician seldom doctors a minister's family free without expecting a return in influence, and a minister can much better afford to pay high charges in money than higher ones in influence. Then the minister needs to have the utmost self-respect.

He loses that self-respect by receiving charity. The failure of many ministers has been due to no other cause than this. He comes to think that he has no financial obligations and that his fellow men owe him exceptional consideration. This is demoralizing. It makes him effeminate; it makes him small; it makes him powerless. A minister needs to be manly as well as pious, and his genuine piety is measured pretty accurately by his genuine manliness. Then this traditional custom places a minister under obligation to his physician, which is embarrassing beyond measure if he finds it necessary to employ other medical skill. Some good physicians, possibly with unselfish reasons, never present bills to their ministers; but it is a part of the programme of every quack, and this ought to be in itself a sufficient reason for an honest physician taking the opposite course. Quacks live very largely by the influence of ministers. Could all the testimonials of ministers be destroyed, never to be restored, quackery would receive a paralytic shock, and the public would be the gainer in long life and fuller purses. It is not that ministers are not conscientious, but that they do not fully realize the responsibility resting upon them, and the degree of influence which their careless judgment may exert. As a class they are duped more easily than any other class of the community, and chiefly because of their desire to please and help everyone who comes to them. If every minister could serve an apprenticeship in the counting-room or the sales-room, his name would seldom appear in black type recommending a nostrum or a worthless book.

THE AMERICAN MEDICAL ASSOCIATION.—The junketing spirit which has characterized the meetings of this body has already been noticed. Should the society desire to make certain changes of habit in this respect it has, in virtue of the cosmopolitan character of its next place of meeting, an excellent opportunity. The occasion of such a meeting in a smaller city, is great, and prompts the natives to extraordinary efforts in the way of entertainment. In such circumstances it might appear to be a violation of hospitality for the association to make the slightest objection to the barbecues, excursions, dinners and dances which have so often characterized its proceedings; indeed, it would be difficult to imagine such heartlessness on the part of this body; but in a large city, such as New York, and such as ought always to be the place of its meetings, where the presence of the American Medical Association would not be materially felt, it might, as a body, decline the barbecues, excursions, dinners and dances, and devote itself to business. A cosmopolitan city surely would not feel hurt if the whole association were not committed to

the junketing programme. No objection could be made to the bestowal of hospitality on individual members, and such as have the inclination may indulge their youthful propensities. Indeed, the metropolis will furnish them with extraordinary opportunities in this direction, but the association itself should not be committed to such a programme. Its influence and its money should rather be directed to the stimulation of original research by the offer of more prizes; to the improvement of medical literature; to certain reforms in medical education, and to the exclusion of a vast amount of chaff which generally besets the proceedings. It is possible that this association might do something to raise the standard of the American medical profession.

SUCCESSFUL TREATMENT OF OBSTINATE UNUNITED FRACTURES BY TRANSPLANTATION OF OSSEOUS TISSUE.—This operation has been performed by Nussbaum, in Munich. He reports in Schmidt's Jahrbücher two successful cases. The first was that of an officer having a gunshot fracture of the right ulna, which healed with pseudarthrosis. The distance between the fractured ends was five centimeters. The radius was intact. The false joint was laid open. A longitudinal piece of bone from the upper fragment, sufficiently long to fill the space between the fragments, was chiseled out and anteverted, without severing its periosteal connection, so as to touch the denuded end of the lower fragment. The wound was closed by sutures, and a fenestrated plaster of Paris bandage was applied. At first there was considerable reactive inflammation, in spite of which the uniting of the pieces of bone took place. Six weeks afterward there was very slight abnormal mobility, so that pronation and supination were yet difficult. One year after, however, the function of the arm was so far restored that the patient was able to resume his duties in the field. The second case was that of a builder, twenty-seven years old, who had a compound fracture of the left ulna, twelve centimeters below the olecranon. The wound healed in a short time under Lister's dressing, but one piece of bone, three centimeters long, and several smaller pieces came out, leaving a pseudarthrosis about three centimeters in length, rendering the arm useless. The old methods of treatment were resorted to without avail. Finally the false joint was laid open and a piece of the upper fragment five centimeters in length bisected longitudinally and turned over without severing the periosteal connection at its lower extremity, and applied to the denuded surface of the lower fragment. A drainage tube was placed in the wound and Lister's dressing applied. Sixty-seven days after the patient was allowed to make the first movements

of pronation and supination, and four weeks later the arm was sufficiently strong to allow of his resuming his work. This operation is mainly of use in cases of pseudarthrosis of the forearm in which only one bone is involved, and is preferable to resection.

ANTISEPTIC TREATMENT OF A BULLET WOUND PENETRATING THE KNEE-JOINT.—One of the most brilliant proofs of the advantage of antiseptic treatment is recorded by R. Volkmann in the *Centralblatt für Chirurgie*, No. 29, 1878. A medical student, twenty-four years old, was brought into the hospital, who had, an hour and a half before, received a pistol-bullet wound in the upper epiphysis of the right tibia. At that time the synovial fluid had escaped from the wound, and at the time of his entrance the cavity was distended with blood. The bullet entered near the lateral border of the ligamentum patellæ, and passed transversely 5.8 centimeters into the caput tibiæ. At the extremity of the path of the bullet a hard body could be felt. A longitudinal incision was made and the wound enlarged until the bullet could be extracted with a sharp gouge. While the wound was being chiseled out succussion of air and blood in the articular cavity was audible. The articular cavity was then opened above the patella, washed out, and a drainage tube inserted. A drainage tube was also inserted in the wound of the tibia. Strict antiseptic precautions were observed during the operation and in the after treatment. Under this treatment all went extremely well. On the fourth day the drainage tube was removed from the articular cavity, and two days later the tube was removed from the wound of the tibia. Six weeks later the patient was allowed to walk, and in two and a half months the functions of the knee-joint were completely restored. Before the introduction of the Lister method, a penetrating bullet wound of the knee-joint would have indicated amputation. In the Franco-German war, the statistics of results from excisions of the knee-joint for such lesions were so unfavorable that surgeons generally preferred to amputate to save life. Such conservative treatment as that employed in this case would have been considered criminal at that time.

AID TO DIAGNOSIS IN LARGE OVARIAN TUMORS.—The *Obstetrical Journal of Great Britain*, of November, 1879, takes the following from the *Centralblatt für Gynäkologie*, No. 6, 1878: "Dr. Schultze, of Jena, describes a method of manipulation which he thinks will be of advantage, in addition to those generally described, in the diagnosis of ovarian tumors, and more especially in discovering the nature of their attachment, and in determining the possibility of extirpating them. He first expresses his approval of

the manœuvre recommended by Hegar, namely, that the cervix should be seized by a tenaculum and drawn down by an assistant, thus putting the pedicle of the tumor on the stretch, while the bimanual examination is carried out by two fingers of one hand in the rectum, and the other hand externally. For the author's special method of exploration, the patient is to be placed in the dorsal position on a table, with her hips close to the end, and to be brought under deep anesthesia. The rectum is then to be explored by two fingers, while an assistant, standing at the other side, grasps the tumor with both hands and alternately draws it upward and presses it downward, causing it to glide, if possible, beneath the abdominal walls. The pedicle, or attachment to the uterus, is thus alternately put on the stretch and released to the greatest degree, so that the fingers in the rectum can distinguish it with the greatest ease from any other source of pressure against the rectal walls. The author considers that the introduction of the half or whole hand into the rectum stretches its walls so much as to render more difficult the appreciation of any resistance felt through them."

ANTISEPTIC TREATMENT OF COMPOUND FRACTURES.—R. Volkmann, in the *Centralblatt für Chirurgie*, No. 39, 1878, reports seventy-three cases of compound fractures treated antiseptically, without a fatal result. Forty-three of these were compound fractures of the leg below the knee, and this lesion gave, before the antiseptic era, a mortality of 38.5 per cent. Twenty-one, or 28 per cent of these fractures involved large joints, one involving the shoulder, seven the elbow, three the wrist, four the knee, and six the ankle. Of these, three were secondarily amputated, six excised, and the remainder healed without operation. Of the latter, ten patients were discharged with movable joints, and only one, a case of bullet wound penetrating the patella, ankylosed. It is worthy of note, that under the old methods of treatment grave lesions of this kind were more dangerous to old than to young people, because the tissues of old people, possessing less vitality than those of the young, were less able to resist the effects of the septic poison. Under the antiseptic treatment no such distinction exists, the tissues of the old healing almost as readily as those of the young.

COMPULSORY EXAMINATION FOR COLOR BLINDNESS.—The Treasury Department has recently issued an order preventing local steamboat inspectors from giving new licenses, or renewing old ones, to pilots, without a preliminary examination for color blindness. These examinations are made gratuitously under the direction of the United States Marine Hospital Service

IMAGINARY ELONGATION OF THE CERVIX UTERI.

—Dr. William Goodell has a lecture in the January number of the New York Medical Journal which abounds in strange inaccuracies. The case described is that of a woman, married ten years, mother of one child, born soon after marriage, since which time conception has been prevented. The lecturer first assumed the diagnosis: elongated cervix uteri. This diagnosis, so far as appears, was based upon the protrusion of the external cervix through the vulva. No attempt was made to differentiate what the lecturer was pleased to call elongated cervix, from procidentia uteri, nor was it explained that true elongation rarely, if ever, occurs. "The term prolapse," said the lecturer, "as applied to elongation of the supra-vaginal portion of the cervix, is a misnomer, because the cervix protrudes from the vulva more from elongation than from displacement." The lecturer having gratuitously assumed the diagnosis, at once declared that the cervix had been elongated by congestion, dependent upon habitual withdrawal of the male organ before the completion of coition. The lips of the cervix uteri, in this case, were everted to the extent of a partial rolling out of the arbor vitæ, and the external os was gaping to an extent which would allow coition to occur in the cervical canal itself. The uterine canal measured six inches by the probe. The author's expressed intention of subsequently performing perineorrhaphy and anterior elytrorrhaphy may be accepted as proof of ruptured perineum and of consequent cystocele. The treatment adopted was amputation of the cervix. The following comments are important:

An immense gaping cervix, with the arbor vitæ rolled out, and with the cervical canal as large as this is said to have been, is pathognomonic of laceration of the cervix.

This condition, when associated with the increased size of the uterus, with cystocele, with rectocele, and with protrusion of the cervix through the vulva, is diagnostic not of elongated cervix but of procidentia uteri.

Elongation of the cervix, in the sense of the lecturer, is a myth, as may be demonstrated in any similar case by placing the patient in the knee-chest position, when the uterus will fall, by gravity, toward the diaphragm, and the vaginal reduplication (see cuts in Chicago Medical Gazette, No. 4, page 91), always present in such cases, having been untele-scoped, so to speak, the utero-vaginal attachment will resume its true appearance at a normal distance from the os externum, and will not by reduplication appear higher than normal, and thereby cause an apparent elongation of the infra-vaginal cervix. The assumed elongation of the supra-vaginal cervix in

this case should have been disproved by passing the uterine probe, with the patient in the knee-chest position, when the uterine canal would have measured one or two inches less than was noted by the measurement with the uterus in its malposition. This difference in measurement is due to the fact that when the uterus is in procidentia its venous circulation is impeded and a resulting erection, consequent upon venous congestion, occurs. Replacement restores the normal circulation, and, by lessening the congestion, necessarily shortens the canal.

In the amputation the lecturer took care not to repeat an accident which he thought had previously happened to him, and which is liable to occur always in amputation of such a cervix, that of destroying the patient by invasion of the peritoneal cavity through the posterior vaginal wall. He also properly cautioned the class against cutting through the anterior vaginal wall into the bladder.

This was evidently a case of laceration of the cervix and perineum. Subinvolution had resulted from the cervical laceration. The uterus therefore remained too heavy for its natural supports. The anterior wall of the vagina, having lost its perineal support, soon came down and protruded in the form of a cystocele, dragging the heavy uterus after it. The intra-uterine tissue rolled out and the delicate intra-uterine membrane, then in contact with irritating secretions and subject to friction, became eroded. The process of eversion and congestion continued until an immense false cervix, similar in form to the normal, composed of congested and everted intra-uterine tissue and of reduplicated vaginal tissue, such a cervix indeed as the lecturer described, had been formed. This was called an elongated cervix. The treatment should have been Emmet's operation for closure of the cervix (trachelorrhaphy), and a well-fitting pessary, which in a few weeks would have resulted in complete involution. Then an operation on the anterior wall; not the removal of the V-shaped piece, advised in the lecture, but Emmet's modification of Sim's operation of anterior elytrorrhaphy, which would have given the uterus temporary support until permanent support could have been obtained by the final operation of perineorrhaphy.

AMPUTATION OF THE CERVIX UTERI.—Relative to the foregoing editorial on Imaginary Elongation of the Cervix, an abstract of a few pages from Emmet's Principles and Practice of Gynecology may be introduced. As soon as the practitioner becomes able to recognize this lesion (laceration of the cervix), under its different forms, he will be surprised to find a new explanation of all cases of elongated or hypertrophied cervix, and of ulceration. Let any one master the diagnosis and he will not fail to recognize the protean

nature of lacerations, nor will he ever see another case of hypertrophied cervix or a so-called elongated neck. Moreover, he will never afterward have occasion to amputate the cervix or any portion of it, except for cancer. In my observation, in a large practice, I have not recognized a single case of elongation during the past ten years. I deny that such a lesion exists. I denounce amputation with scissors, knife or cautery of so-called hypertrophied or elongated cervix as malpractice. This operation, as at present applied, is a greater malpractice and is attended by more evil consequences than any other recognized operation in gynecology. Even more uncalled for is the application of the cautery or of caustics to heal the so-called ulcerated surface on the cervix, whose lips may be readily united and brought into a healthy condition by the application of the suture. To those who are familiar with this subject it will not seem to have been treated beyond its merits. Its importance is not liable to exaggeration, since at least one half of the uterine ailments among those who have borne children are to be attributed to laceration of the cervix.

BROMIDE OF ETHYL.—We have received from John Wyeth & Bro. a sample of the new anesthetic, bromide of ethyl, or hydrobromic ether. This anesthetic is as agreeable as chloroform, more prompt in its action, and recovery from its effects is more rapid, is said to produce less nausea, and it seemingly has very little effect upon the respiration and circulation. At present it may be said to answer more nearly the indications of a pure and simple anesthetic than any other known compound. The question of safety alone remains; and this, doubtless, will speedily be settled, because the bromide of ethyl already has the sanction of authority, and, to a considerable extent, of precedent. It is certain to have a fair trial, and to become the recognized anesthetic if in safety it prove not inferior to ether. The general sentiment of the profession toward this agent is evidently favorable.

CINCHONA CURE FOR DRUNKENNESS.—Dr. Charles W. Earle, in a paper recently published in the *Chicago Journal and Examiner*, says that he does not know a single person to whom the drug has been administered who has stopped the use of liquors, and that in many cases the old desire, which had been nearly overcome, has been rekindled by its use. He does not say that injury to the patient has resulted in every case from its administration, but affirms that injurious effects have followed in every case which has fallen under his observation. Dr. Earle's extensive practice in the *Washingtonian Home*, and among private patients, qualifies him to speak with authority.

HYGIENE OF THE SCHOOL-ROOM IN ITS RELATION TO LIGHT.—The following are the conclusions of a paper read before the *Société de Biologie* by Dr. Javal, director of the laboratory of Ophthalmology, at the Sorbonne, published in the *Gazette Hebdomadaire*, October 17, 1879, and noticed in the *Medical News and Abstract*, January, 1880:

1. It is proved that the causes of short-sightedness are habitually a prolonged application of sight during childhood, combined with insufficient light.
2. In our climate illumination by diffused light never attains, even in the open air, to an injurious intensity.
3. The belief that bilateral light is injurious to the preservation of sight does not rest on any theoretical basis.
4. According to most recent statistics there are schools in which, the light being bilateral, myopia is comparatively rare; and there exist others in which unilateral light is had under most favorable conditions, nevertheless myopia is as frequent as in the worst arranged schools. Experience is certainly not in favor of unilateral light.
5. Sufficient light, by means of windows arranged on one side, can only be obtained if the width of the room does not exceed the height of the lintels of the windows above the floor.
6. Light from behind, if it comes from above, may be usefully combined with lateral light; the light from a glazed roof is excellent.
7. Bilateral light should be preferred on all accounts. In this system, the width of the school-room being for the same height of windows twice as great as in the case of unilateral light, the intensity of the light in the middle of the room (which is the least benefited portion) is double that obtained by the same distance from windows where unilateral light is used. However, the width of the school-room must never exceed double the height of the windows.
8. Great importance must be attached to placing the school toward the east, and the axis should be directed from north-northeast to south-southwest; a deviation of more than forty degrees from the direction north-south should never be allowed except in exceptional climatic conditions.
9. The master should face the south.
10. Finally, it is absolutely indispensable to reserve on every side of the school-room a strip of inalienable ground, of which the width should be double the height of the loftiest buildings that could be erected; allowing for the progress of civilization which has multiplied high-storied buildings to an extent hitherto unknown in the country. This last condition is the most important of all.

TOTAL EXTIRPATION OF THE UTERUS. FREUND'S METHOD.—Schmidt's *Jahrbücher*, B. 179, p. 253, contains a description of this operation, of which the following is the substance: During the week previous to operation, the patient is given only such food as is capable of complete digestion. This should be, in general, of a concentrated form, although milk, eggs, etc., may be included. On the day before the operation the bowels are to be moved by the infusion of senna. The operation would not be justifiable except under strict antiseptic precautions. An incision is made in the linea alba from the umbilicus to the mons Veneris. A loop of wire is then passed through the abdominal wall and peritoneum, below the line of incision, to prevent the pelvic peritoneum from being torn away from the anterior wall of the pelvic cavity. If the abdominal wall is relaxed, the small intestines in the pelvic cavity are to be lifted into the abdominal cavity and held by an assistant. If the abdominal walls be tense the intestines are lifted out of the cavity, through the wound, and protected by wet cloths. Another loop is passed through the body of the uterus from its anterior to its posterior side to facilitate manipulation during the operation. The ovarian ligament and Fallopian tubes are then ligated. One end of each ligature is brought out and held, and the other is passed down into the vagina so that one thread shall be on each side of the uterine artery, in order that it may be ligated when necessary. After these preparations the excision is as follows: two centimeters above the vesico-uterine attachment, the bladder being protected from accidental injury by a sound, a transverse incision is made through that part of the peritoneum which covers the anterior surface of the uterus. A similar incision is then made through the peritoneum on the posterior surface. These two flaps are then secured by silken loops, so that they may be held in any desired position. The connective tissue surrounding the cervix is then divided with the handle of the scalpel and the finger. Finally, this division is completed through the walls of the vagina by means of a curved bistoury. The uterus is then dissected loose and removed. The smaller vaginal arteries are secured by torsion or ligature. After the removal of the uterus all the loops are passed down through the vagina and the wound is closed by sutures. The line of sutures will now unite the two transverse incisions through the peritoneum, and will be anterior to and above the cul-de-sac of Douglas. In place of the carbolyzed oil and cotton tampons formerly recommended, the author uses a large pledget of carbolyzed lint, retained in place by mechanical support. The indications for this operation, accord-

ing to Freund, are carcinoma or sarcoma of the body of the uterus or of the cervix, when not more than a centimeter of the vaginal wall is involved. In cases of carcinoma of the uterus in which Cæsarean section is indicated, the two operations may be combined. Freund considers this method preferable to supra-vaginal amputation of the uterus. Of his five cases, three recovered, one died from septicæmia, and one from peritonitis caused by perforation of diseased intestine.

THE ACTION AND USES OF HYOSCYAMIA.—Mr. Engledue Prideaux, assistant medical officer at the Friend's Retreat, near York, presents in the *Lancet*, October 11, 1879, an elaborate paper based upon very extensive experience in the use of the drug, of which the following, taken from the *Medical News* and *Abstract*, January, 1880, is a summary:

1. That in most cases of mania, or where there exists great excitement of an aggressive and destructive character, or rapidity of movement and speech, the use of the drug is the most effectual and rapid means of exercising that form of restraint which has been termed "chemical restraint."

2. That in cases of acute mania it will produce sleep and quietude when all other drugs have failed, and is one of the most rapid and reliable narcotics we possess.

3. That in the treatment of the epileptic status in epileptic mania, it diminishes the number, frequency and severity of the attacks, especially if its administration be extended over some time.

4. That in delusional insanity, especially the mania of suspicion and other forms of mania where the delusions are varying and changeable, it has a decided action in producing such an altered condition of the cerebral status that a condition which has been termed "physiological mania" results, and this so eclipses the former delusions and hallucinations that they are forgotten, and the mind becomes clear; while if the subjection to the influence of the drug be continued, it ultimately leads, under favorable circumstances, to a permanent condition of quiescence and restoration to a healthy state of mind.

5. That in chronic dementia, associated with destructive tendencies, bad habits, and sleeplessness, the condition of the patient much improves after a continued course of small doses of the drug.

The disadvantages that have occurred in its use, and which have to be guarded against, are: the dryness of the tongue and pharynx that occurs, especially after a prolonged administration. This has been thought to contra-indicate its use in cases of artificial feeding, but provided the tube be dipped into an oily liquid before passing, I have not found it any

inconvenience. The attacks of vomiting that have occurred in some cases after an administration of some weeks, necessarily lead to a discontinuance of the drug. Vomiting occasionally occurs after one dose, even a small one, and in two cases mentioned by Dr. Lawson, hæmatemesis took place. Where rapid and sudden action of the drug is feared in feeble cases, it is better to administer it with the food.

EMMET'S PRINCIPLES AND PRACTICE OF GYNECOLOGY.—During the past twenty-five years the ingenuity and the stupidity of the medical profession appear to have been exhausted in the multiplication of varied systems of uterine pathology, in the device of dazzling surgical operations for the relief of diseases of the reproductive organs of woman, and in the invention of mechanical appliances for their diagnosis and treatment. The literature of gynecology, by reason of its rapid growth, includes much of false pathology and of questionable practice. A year ago that remarkable book known as Emmet's Principles and Practice of Gynecology made its appearance, and so great was its recognized value that in six months the first edition, though very large, was exhausted. A second and improved edition has just been published. It is not materially larger than the first, although several portions have been rewritten and considerable important matter has been added. It marks an era in the history of gynecology. The book looks backward upon chaos, forward upon order. A remarkable feature is the truth which it contains; even more remarkable is the error which it omits. No gynecological treatise has appeared which contains an equal amount of original and useful matter; nor does the medical and surgical history of America include a book more novel and useful. The tabular and statistical information which it contains is marvelous, both in quantity and in accuracy, and cannot prove otherwise than invaluable to future investigators. It is a work which demands not careless reading but profound study. Its value as a contribution to gynecology is perhaps greater than that of all previous literature on the subject combined.

PROBING PENETRATING WOUNDS OF THE BRAIN.—An article in the February number of the Chicago Journal and Examiner illustrates the occasional uselessness of this use of the probe. The patient was a robust man. A 32-caliber ball had entered the head about an inch above the brow and an eighth of an inch to the right of the mesial line, with no resulting paralysis or loss of consciousness. A probe was easily passed downward [backward, Ed.] about three inches, and to the right, but did not reach the

ball. Loose pieces of bone were felt about the aperture in the skull. The probing was repeated on the same day, but with negative results. On the following day, contrary to instructions, the patient rose and walked across the room, but with no immediate bad result. The condition continued favorable, with slight variations, for about ten days, when paralysis, convulsions and death followed. At the autopsy the ball was found lodged in the anterior lobe of the right hemisphere, about three-fourths of an inch below the membranes, directly under the aperture. The cause of death was pronounced traumatic inflammation of the brain. Unfortunately in this, as in nearly all such cases, some important particulars are not given. The case is, however, important as showing that a probe may be passed, without much pressure, several inches into uninjured brain substance, when the operator is attempting only to follow the track of a projectile. There is no certainty in this case that the probing did positive harm. The operator, moreover, acted with precedent and with authority, if, as is stated, the probe was passed without pressure. The question, however, is raised: Is probing in such cases rationally indicated?

THE EXAMINATION OF THE EAR leads, in rare instances, to alarming results. Many a practitioner has been annoyed by the sudden dizziness of his patient, while syringing the meatus. Two instances of unusually disagreeable consequences are related by Drs. Roosa and Ely in the present number of the Archives of Otology. A gentleman, forty years of age, had the ear examined on account of chronic otorrhœa. The ear was syringed with warm water and then cleansed with a cotton swab, after which the patient complained of feeling faint. He lay down, and became comatose. Respirations were reduced to six per minute and became stertorous. The heart became feeble and the radial pulse disappeared. Sherry wine, electricity, and inhalations of ammonia, were employed. The attack lasted nearly two hours. No cause could be assigned for it but the dread of the patient. In another instance a young lady fainted twice after inflation of the middle ear by Politzer's method. She was, however, nervous and anæmic.

CHANGE IN THE EDITORIAL CORPS.—Dr. Haines, owing to press of other duties, has been unable to do the work in his department which the interests of the Gazette require, and has accordingly withdrawn from the editorial corps. Dr. Harvey W. Wiley, Professor of Chemistry in the Indiana State University, has been appointed in his place. Dr. Wiley's residence and post-office address are La Fayette, Indiana.

PESSARIES.—The large variety of pessaries of all grades of simplicity and complication, and the disappointments which many have experienced in their use, are evidence either that displacements of the uterus depend upon intricate and complex causes, or that a vast amount of ingenuity has been misdirected. It is impossible in a single page to explain the uselessness and the dangers of nearly all of these varieties. We shall therefore enumerate generally the useless and dangerous instruments and explain briefly the application of the useful ones. All pessaries having external attachments such as abdominal belts, etc., all intra-uterine stem pessaries, all pessaries pressing upon the anterior wall of the uterus, all sponge pessaries, if not dangerous, are generally inferior or useless.

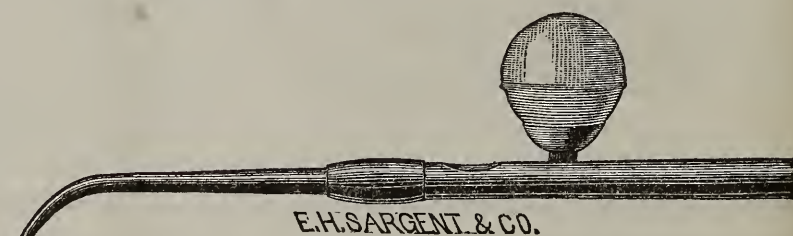
The Hodge pessary, or some modification thereof, fulfills all of the general indications for mechanical support to the uterus more satisfactorily and with less liability to injury than any other variety. It is a mistake to suppose that a pessary should give direct support to the uterus. It supports instead the walls of the vagina, and these support the uterus. The object of the pessary is simply to push the posterior vaginal cul-de-sac backward into the hollow of the sacrum. Clearly this cannot be accomplished without drawing the cervix uteri back in the same direction. Normally the posterior wall of the cervix should be within an inch or an inch and a half of the hollow of the sacrum, and the axis of the uterus should be at a right angle to the axis of the vagina. The physiological variations in this angle are not great, and tend rather to make it acute than obtuse. Any pessary which by pressure upon the posterior vaginal cul-de-sac carries the cervix to its normal position, within an inch or an inch and a half of the hollow of the sacrum, clearly renders posterior displacements impossible, because the uterus would have no room in which to fall backward and would therefore fall forward in the direction of least resistance. It follows, then, that if the cervix is in its normal position the uterus will take care of itself, so far as posterior displacements are concerned. Anterior displacements seldom produce unpleasant symptoms except by pressure of the body of the uterus on the bladder. The bladder symptoms may be relieved by the same pessary, if it be so applied as to carry the cervix backward and upward sufficiently to lift the body of the uterus from the bladder. Thus it appears that the indications for mechanical support may be in the main fulfilled by the application of a simple principle, which may be expressed as follows: put the cervix where it belongs, and whatever may have been the malposition, the body will very gen-

erally take care of itself. The reasons of failure and of injury in the use of the pessary fall under two heads: I, application in the presence of contra-indications, such as cellulitis and peritonitis; II, imperfect adjustment.

The well known contra-indications of pelvic cellulitis and pelvic peritonitis are often disregarded with disastrous results. The faults common to improper adjustment are more easily stated than remedied. The pessary may be too large or too small. The pessary should not be so large that the patient will be conscious of its presence, nor should it render the vaginal walls tense. It should, however, be large enough to keep its place perfectly. The peculiarities of individual cases are numberless and cannot here be summarized so as to give an adequate idea of the innumerable slight variations in shape from the standard pessary.

GRANULAR EROSION OF THE PHARYNX.—In an editorial in the first number of this journal, Dr. H. C. Howard, of Champaign, Ill., was represented as having seldom failed to effect speedy cure of chronic pharyngitis and granular erosion of the pharynx by the use of a powder composed of sugar of milk, 200 parts; iodoform, 100 parts; thymol, one part. The addition of the thymol has been made for the purpose of depriving the iodoform of its disagreeable odor.

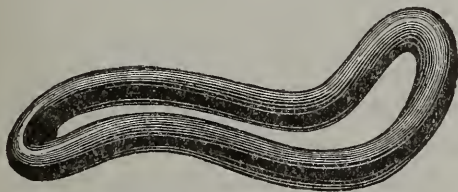
Numerous letters have been received asking for an



explanation of Dr. Howard's method of applying the powder. He informs us that he makes the application by means of an ordinary insufflator, which the accompanying cut represents. He directs the powder to be applied once a day, in ordinary cases, and oftener in aggravated cases.

THE CURVES OF THE PESSARY demand careful attention in its application. When the uterus is below the normal levels the broad ligaments are necessarily rendered more tense than natural, and the blood-vessels, more especially the veins, which are looped one upon the other and which traverse these ligaments to and from the uterus, are made to collapse. This causes venous congestion, and consequent increase in weight of the uterus, a condition favorable to malposition, uterine catarrh and pathological changes in structure. A pessary which will

raise the uterus to the health level clearly fulfills an indication. A pessary which raises it above the health level renders the broad ligaments tense on the other side, and produces the condition which it was designed to relieve. Adjustment of the uterus to the health level depends largely upon the curves of the pessary shown in the accompanying cuts, which illustrate the shape and curve of the Hodge pessary as modified by Emmet and Albert Smith. The upper represents the curve of Emmet, the lower, that of Albert Smith. For convenience let us characterize that curve which rests in the posterior vaginal cul-de-sac as the uterine curve, and that which occupies that part of the vagina adjacent to the pubis, the pubic curve. The acuteness and length of the uterine curve determine the height to which the pessary will lift the uterus. The longer and more acute the curve the higher the uterus will be lifted, and vice versa.



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The smaller curve of the Emmet modification will answer the average indication more nearly than the sharper curve of the Albert Smith modification, which often lifts the uterus too high. The pubic should generally be proportioned to the uterine curve; that is, the greater the uterine, the greater the pubic curve. A pessary properly adjusted in all other respects may, by pressure upon the urethra and neck of the bladder, create vesical tenesmus and urethral irritation. This calls for increase in the pubic curve. Sometimes the pubic curve is so great that the lower part of the pessary occupies the center of the vulva, where it may create irritation and interfere with coition. For this condition lessening of the pubic curve is the remedy. It should be urged that no man may safely apply the pessary until he has fully appreciated its indications and contra-indications. Few practitioners possess naturally the mechanical skill necessary to its proper adjustment. Of this thousands of unfortunate women may bear witness. Its dangers in inefficient hands are in striking contrast to its usefulness when judiciously employed.

CHICAGO MEDICAL COLLEGE.—The twenty-first annual commencement was held at Plymouth Church, Tuesday, March 30, 1880. The degrees were conferred by Dr. N. S. Davis, dean of the faculty, and the response for the class was made by Dr. Geo. W. Mason. The address to the graduates was by Dr. E. W. Jenks. The alumni banquet was given at the Tremont House at 7.30 P.M. Graduating class: Hiram H. Baldwin, James E. Bumstead, James Carter, J. Madison G. Carter, Andrew J. Coey, Charles E. Cook, John C. Cook, George B. Colby, Wm. Dodd, A. A. Eddy, Wyman H. Fisher, Wm. E. Gallup, Edgar A. Holmes, John I. Hostetter, Fred. O. Hoyt, Levi H. Johnson, Charles L. King, Frank H. Kimball, James J. Larkin, Frank H. Martin, Thomas N. Miller, George W. Mason, Nathaniel E. Oliver, Fred. J. Parkhurst, Ernest Pierpoint, Lorenzo T. Potter, R. W. Emerson Puckett, John N. Pascoe, Fred D. Rogers, George U. Runcie, Willis S. Reynolds, Hein Terhorst, Homer H. Throop, Newton M. Wade, Thomas A. Ward, Milton P. White. Ad Eundem degrees were conferred upon Benj. F. Black, M.D. and upon W. Frank Hicks, M.D. Lorenzo T. Potter, M.D., James J. Larkin, M.D., and Frank H. Martin, M.D., have been appointed to the house staff of Mercy Hospital for the ensuing year.

BOGUS DIPLOMAS.—Two Methodist ministers, who had connected themselves with a bogus medical college in Philadelphia, have been very properly disciplined by their conference, one being expelled from the church and the ministry, and the other suspended for a year. These men, taking all the circumstances into consideration, were really no more guilty than are some regular medical men, who, as members of the faculties of low-grade medical schools, send out their swarms of incompetent graduates every year. The profession to which they belonged promptly disowned them. Medical associations may properly act in a like spirit respecting no small number of recognized medical colleges. The signs of the times are that the day will come when no man can hold a professorship in a medical college whose standard falls below a certain grade, and retain the confidence of the public.

THE AUDIPHONE has found its way across the ocean. Colladon, the well known physicist of Geneva, has been experimenting with it. His results, published in Nature, March 4, are about the same as those of American observers. In a few cases of deafness decided benefit was observed. In one instance a singer who had been deaf fourteen years could, for the first time, again hear the voice. As a curiosity it is mentioned that deaf mutes evinced pleasure the first time they heard music. Colladon found that a plate of heavy cardboard, of the finer variety, was a

good substitute for the expensive rubber instrument. At the last meeting of the Chicago Medical Society the instrument was discussed. Several members censured the "proprietary" spirit of the inventor. Thereupon Mr. Rhodes, the inventor, complained in the daily papers of "medical jealousy." The fact that the audiphone is of value in some few cases, be they never so rare, entitles the inventor to well deserved credit. It is said that he discourages investigation on the part of the profession. His right to do this will not be questioned. The reason why he has not placed his instrument more freely in the hands of medical men for experiment may be explained in a manner not quite favorable to him. The only precise statements as to the value of the audiphone which we have seen were published by Knapp, in the last number of his *Archives of Otology*. He examined fourteen cases of deafness, mostly from chronic otitis media. As a result he found that in the majority of instances the audiphone enabled the person to hear better. The utmost improvement amounted to about five times the previous acuity of hearing. But in every instance more benefit was derived from the use of a large conical ear-trumpet,—of somewhat awkward shape, it is true. In some cases the trumpet improved the hearing, while the audiphone proved useless.

INFANTILE TRISMUS.—Dr. Coke, of Mississippi, claims that he cures seven out of nine cases of infantile trismus by the following treatment: In addition to absolute rest he first employs applications of spirits of turpentine over the chest, abdomen, legs and arms, and afterward uses an embrocation of turpentine and laudanum, and administers small but repeated doses of chloral, and inhalations of chloroform under the bedclothes. He specially insists that the child shall not be disturbed in the least degree. On the authority of Dr. Ford, of St. Louis, Dr. Coke's reputation is guaranteed as highly reputable.

A PLEA FOR ANESTHESIA IN LABOR.—Dr. D. M. Barr, of Philadelphia, in a paper on this subject read before the Obstetrical Society of Philadelphia, and published in the Medical and Surgical Reporter of March 13, sums up as follows:

I. The claim of the parturient woman for anesthesia is unequalled by any claim in the wide world.

II. These claims will not have received a fair response until the anesthetic is as common in the lying-in chamber as upon the operating table.

III. A proper anesthesia is more directly indicated and more safe in the ordinary obstetric patient than in the surgical patient, case for case.

IV. We have an anesthetic mixture (Ether, three

parts; Chloroform, one part; Alcohol, two parts) capable of producing perfect immunity from suffering, without intoxication, without vomiting, without reaction or dangerous sequences.

V. The babe offers no contra-indication, since its safety is not jeopardized.

VI. Labor is not hindered, but rather hastened, by the anesthetic.

VII. Anesthesia offers no contra-indication for the use of any medication which would be indicated in its absence.

TREATMENT OF URTICARIA.—Franke, of Pesth, employs atropine in the treatment of the severer forms of urticaria, and Schwimmer has recently reported three cases rebellious to all other medication that were quickly cured by this agent. The theory of its employment is that urticaria is an angioneurosis and atropine relieves it by its action on the sympathetic system of nerves.

HYDRATE OF CHLORAL.—Dr. H. H. Kane, of New York city, specially requests members of the profession with any experience whatever in the use of the Hydrate of Chloral to answer the following questions, and give any information they may possess with reference to the literature of the subject:

I. What is your usual commencing dose?

II. What is the largest amount you have administered at one dose, and the largest amount in twenty-four hours?

III. In what diseases have you used it (by the mouth, rectum, or hypodermically), and with what results?

IV. Have you known it to affect the sight?

V. Have you ever seen cutaneous eruptions produced by it?

VI. Do you know of any instances where death resulted from or was attributed to its use? If so, please give full particulars as to disease for which given; condition of pulse, pupils, respiration and temperature; manner of death; condition of heart, lungs and kidneys; general condition, age, temperament, employment, etc. etc. If an autopsy was held please state the condition there found.

VII. Have you seen any peculiar manifestations from chloral—as tetanus, convulsions, or delirium?

VIII. Do you know of any cases of the chloral-habit? If so please state the amount used, the disease for which the drug was originally administered, the person's temperament, and the present condition of the patient.

Physicians are earnestly requested to answer the above questions (especially VI and VIII) fully, in order that the resulting statistics may be as valuable as possible.

All communications will be considered strictly confidential, the writer's name not being used when a request to that effect is made. Address all letters to Dr. H. H. Kane, 191 West Tenth street, New York city.

ORIGINAL CONTRIBUTIONS.

METALLIC MERCURY FOUND IN THE URINE FOLLOWING THE ADMINISTRATION OF THE GREEN IODIDE.

BY PLYM. S. HAYES, M.D.,

Professor of Chemistry, Woman's Medical College, Chicago.
[Read before the Chicago Biological Society, April, 1880.]

Mr. B—, a commercial traveler, aged thirty, of German parentage, of full habit and light complexion, placed himself under my care a short time since.

He stated that he was suffering from syphilis, recently acquired, and was then suffering from a severe headache and sore throat. Although he had taken a severe cold just before leaving New York, he was fearful that his present troubles were manifestations of syphilis. His skin was hot and dry, and his pulse 110 per minute. His throat was of a damask hue, but without any patches or ulceration. There was a nearly healed chancre on his prepuce; this had been cauterized by his New York physician. He had had two (now suppurating) buboes, and the syphilides were just appearing on his forehead. He stated that the following prescription was all the medicine he had taken since he had become syphilitic:

R—Hydrargyri iodidi virid., gr. x.

Ext. opii, gr. v.

M. et fiat pil. No. 20.

S. Take one three times a day.

I advised that he continue the pills, and in addition gave him quinine and a gargle. Two days later he came to my office and I applied a dilute solution of the liq. hydrargyri nitratis to the eruption. In all not more than three drops of the liq. hydrargyri nitratis were used. The next day he returned, with the left side of the face quite swollen. Two days later he sent for me and I found his legs quite œdematous, the pulse and temperature remaining the same as when I first saw him. The urine was small in quantity and high-colored. An examination of it revealed the following: The specific gravity was 1035; albumen was present in such quantity that when coagulated the coagulum formed a cast of the test-tube. A microscopical examination revealed a large number of waxy casts with a few oil globules, and a few free blood globules and epithelial cells. The mercury was discontinued and the patient ordered a hot bath, which was to be followed by the fld. ext. jaborandi, fifteen m every half hour until diaphoresis ensued. Two days later another specimen of urine was obtained. The specific gravity of this was 1021, and there was no albumen. The casts, oil globules and blood globules had disappeared. Five slides were examined under the microscope. In three of the five, globules of mercury were found varying in size from the $\frac{1}{3000}$ to the $\frac{1}{300}$ of an inch. Dr. H. M. Bannister examined two of the slides and confirmed the above statement. It did not occur to me to examine the first specimen for mercury. A week later the dropsy had disappeared and the erup-

tion had vanished. Mr. B— stated that five or six years ago he had been treated with mercury—in what form he was unable to say—for syphilis. The only symptom of syphilis he had at that time was the sore on the penis. At that time the mercury was given until he was salivated, and then discontinued; since which time he has not taken any until the present inoculation. Whether the albumenuria was due to the mercury, to the cold he had taken, or to both, I am unable to say. From the rapid subsidence of the œdema, and the more rapid disappearance of the albumen from the urine after the mercury had been discontinued, I am of the opinion that mercury was the chief factor in the case. The bottle in which the last specimen of urine was obtained was absolutely clean, having been bought new at the druggist's. The patient urinated directly into the bottle. And finally the slides and covers used in examining the last four specimens had never been used before. Every precaution was used to exclude errors. I was induced to look for metallic mercury, from Dr. Clevenger's paper on "The Action of Mercury." The important fact in this case is the appearance of metallic mercury in the urine following the ingestion of the green iodide, the patient not having taken mercury for five years before, and then probably as a salt and not in the metallic form.

NEURASTHENIA, HYSTERIA, AND THEIR TREATMENT.

BY S. WEIR MITCHELL, M.D., PHILADELPHIA, PA.

I have noticed with great pleasure Dr. Sutton's liberal statement of the value of the treatment, which may be briefly described as rest, seclusion, full feeding, and the mechanical tonics, massage and electricity. I have had, so to speak, set down at my feet many hopeless women and some men, who had passed through from two to a half-dozen of the ablest medical hands in America, and a few who could count their doctors by the score, on both continents. The plan which Dr. Sutton has used so well was thought out for one of these sufferers, and has been applied hundreds of times since. It was smiled at a little, to begin with, and then condemned as lacking novelty; but it no longer needs a sustaining word from its author, since from men like Goodell, Sutton, Perry and others it has won a careful trial and a full approval. Perhaps it may be of some service if I ask place for a few remarks founded on my added experience. The first point which I shall mention is the presence of uterine disease. Is it wise when using rest treatment to correct all womb troubles at once, or to wait, or to neglect them altogether? I am guided as to these matters by the following rules: In the case of married women, I cause to be made a thorough examination to begin with. If there be only congestive states and their consequences, I trust to the general treatment for cure. If there be marked displacements or excessive menstruation I

like to correct the one, and have the uterine cavities well searched for causes of the other. If the patient be a virgin, and there seems little reason to suspect misplacements, I trust again to the general treatment. If, moreover, there be plain evidence of misplacement, and the patient be of that temperament which makes examinations disastrous shocks to the nervous system, I wait patiently the result of the rest and its aids. Then at the close of two months I like to make an effort at relief, in the hope that with a reinforced nutritive life my patient may bear the strain. Dr. Goodell will remember cases, seen with me, in which the patient, having retroversion, decided to undergo no mechanical treatment, and has seemingly become and remained well, under rest, etc., despite the uterine trouble.

The question of ovarian troubles is far more troublesome, but I may safely refer the reader to Dr. Goodell's address for further knowledge as to these.

Another matter which I never neglect is a study of the eyes, and this especially where there are head symptoms; nor do I trust as to this the dictum of any oculist that the defects of accommodation, etc., are not great enough to cause trouble, having learned full well that imperfect eyes, which give rise to no disorder during health, become competent to cause lively disturbances of a brain made sensitive by hysterical or neurasthenic conditions.

Again, I like now to know accurately whether the proportion of red globules be normal or not, and this I get at readily and exactly with the aid of modern methods of counting the globules. The question of seclusion, on which Dr. Sutton has rightly laid the utmost stress, is to be answered by a careful study of the patient's morals. There are women who have run down perilously, who weigh little, and lack blood, but who retain calm control of themselves, and are able to endure more or less society without too great fatigue, and without seeking in every one who approaches them food for morbid sympathy. I have been often criticised for secluding patients from friendly visitors, but I beg leave to remind my critics that a tired woman, who sees nurse and doctor daily, who has also an hour's massage with some inevitable chat, and a young physician who is sure to talk more or less during an hour's electrization, really sees four persons daily, and too often has to be cautioned not to talk too much to those whom she must see for purposes of treatment. As to the need for absolute seclusion for most hysterical females I have in no wise changed my opinion, and am glad to have so positive an endorsement from Dr. Sutton. Where I have hesitated as to this, and yielded ever so little, I have had several times to record disastrous failures. But to succeed in this matter, as in most details of this treatment, requires the help of nurses of the highest type. Mere technical training as nurses will not do. You must have moral qualities in your nurse which no training can originate. When I have a nurse such as I like to have I usually begin by giving her

an outline of her patient's peculiarities, moral and physical, teaching her to study these with care, and learn for me all she can as to these and other matters related to the case.

If I lived in the country, and needed to treat a case by rest, I would teach the nurse massage, and trust to doing as well as I could; but as a rule no one can use massage well unless doing it constantly. It is a fatiguing process, and needs an expert.

I like well to train the muscles by Swedish movements after I cease to use massage. This process requires great care, and can be better carried out by a nurse who has learned it methodically than by any one else, because it is often best to use it two or more times a day, and not in one long sitting. In its use it is essential to have long intervals of rest, and always slow movement. Taylor's book is a fair manual. But there is, perhaps, room for a more careful study of this and other methods of exercise by some scientific physician. I agree with Dr. Sutton that the term "pinching," as a part of the description of massage, may mislead. I do not think I can quite agree with him as to electricity. It is "not absolutely essential"; but I am more and more sure that as I use it, it is an admirable tonic. I do not use it in these cases in the form of central galvanization, but employ for both local and general applications the induced current.

Lastly, I may say that I never use rest and its concomitants where other means have not been tried; but I do not hesitate to assert, as the result of a vast number of cases, that it is a resource of immense value where all others have proved useless. I leave to my critics the futile discussion as to how far the plan is novel. We know most thoroughly that in the hands of firm, tactful, self-reliant physicians it will be rewarded with a large percentage of success.

Moreover, I may say that it has now been in use so long that I am able to speak with certainty as to the rarity with which relapses occur in well-chosen cases. I fail more often than I did at first, because I use it in a wider range of troubles, and am sometimes urged into using it in special cases by physicians, who ask it as a favor, when I myself am of opinion that it is not certain to succeed. It is very important that others than I should say, on paper, how well or ill it has served their purposes, and I cannot, therefore, fail to feel grateful to those who, like Drs. Goodell and Sutton, have been at the pains to use it without modification, and then to report the results.

HYPNOTISM.

BY H. GRADLE, CHICAGO.

Mesmerism, or animal magnetism, has for many years received but little attention on the part of serious observers. Since the first experiments by Braid very little addition has been made to our knowledge. Some years ago, although similar experiments had been mentioned by writers in the middle ages, the subject was again taken up by a German physiologist, Czermak. He found that birds could be put into a

state of absolute inactivity by stretching them upon the back and retaining them in this position for a short time. The animals thereupon remained quiet during a variable period; they could be touched or pricked without efforts to escape, but a loud noise usually sufficed to restore them. Other physiologists learned that rabbits or even frogs could be similarly deprived of volition. The explanations given vary. Preyer says the animals are "spell-bound by fear." Czermak derives this state from a concentration of the attention upon a single impression, while Heubel concluded, from observations upon frogs, that this state is but natural sleep, induced by monotonous impressions on the senses. The latter explanation, however, does not fully cover the ground.

Recently a traveling showman demonstrated his "magnetic influence" in Breslau. The exhibition caused some stir, inducing a number of scientific gentlemen to investigate the matter. Various reports of their results may be found in the last numbers of the *Deutsche med. Wochenschrift*. Among the names we find those of Heidenhain, the famous physiologist, and his assistant, Grützner; also Berger, a well known neurologist. The reputation of these men is such as to suppress all suspicions. They found that the "mesmeric trance" could indeed be induced. This much has been known since Braid's researches, but we hear now, for the first time, precise statements. The number of persons who may be hypnotized is limited. Anæmic individuals are especially prone, but, on the other hand, the observers state that a good development of the muscular system is also favorable. The hypnotic state may be induced by various feeble, but persistent, in fact monotonous impressions on the senses. Generally the observer strokes the forehead. But in order to be successful it is necessary that the hands should be warm. Steady application of the warm hand to the forehead will alone suffice in some instances. Frequently, steadily gazing at a bright object—for instance a button—will assist the other manipulations. Instead of the warm hand a warm metallic plate held near, but not applied to, the forehead will sometimes produce the desired effect. Again, sensitive persons may be hypnotized by listening to the monotonous ticking of a watch. The inducing cause is always subjective, or, more properly speaking, mental, since in persons previously hypnotized the mere anticipation may produce that state.

After the first trance there remains an increased sensitiveness to all hypnotizing manipulations for some days, or even weeks. Heidenhain hence cautions us not to repeat the observation often on the same person lest permanent nervous trouble should be produced. Hypnotism cannot be induced if other impressions, not of a monotonous nature, occur at the same time—for instance, faradization of the skin. The hypnotized person may also be awakened by sudden irritations (not necessarily painful), as blowing into the face, smartly slapping the skin, or by loud noise.

The cardinal observation, which excludes all intentional or unintentional deception on the part of the subjects, refers to the fact that hypnotism can be induced by the usual manipulations even during natural sleep. Moreover many of the subjects were medical men. In some cases success was obtained with persons who were quite ignorant of the intention of the experiment.

The hypnotic phenomena are of three varieties: I, those referring to consciousness; II, the imitative tendency; III, the increased muscular (reflex) excitability. Most persons when hypnotized seem unconscious. When awakened they have either no recollection of what occurred, or a dim remembrance only, like that of a dream. While unconscious they are not sensitive to pain. No irritation causes evidences or recollection of pain. The senses, however, are not paralyzed. The eyes are not fully closed; the lids droop, it is true, but the person still sees. Impressions taking their course through any of the senses are evidently felt, since responses in the form of imitative movements occur. But as far as can be judged the impressions do not enter the consciousness fully. They are perceived, but not interpreted. A few individuals did not lose their consciousness and their sensibility to pain, but otherwise reacted like the rest.

The imitative tendency reveals itself by imitation of everything that the subject hears or sees. The showman referred to above seemed to command, but in reality led, by example. When the subject sees or hears another person chew, he does the same no matter what object is placed between his teeth. He walks in the same rhythm as the "mesmerizer," and he imitates all movements shown to him. Perhaps the most curious observation refers to the repetition of the voice. When one hand was placed upon the forehead and the other upon the nape of the neck, certain hypnotized individuals repeated all words of the mesmerizer in the original voice and with the same rhythm, no matter whether they were familiar with the language or not. The subject became an echo, or, as the Breslau observers call it, a phonograph. The echo ceased as soon as the hands were removed. In other instances individuals wrote fluently in foreign languages, copying exactly the original of the observer, provided he wrote simultaneously with them. Some of these persons could not write well in their normal state with convex spectacles.

The third group of symptoms arises from an exalted reflex excitability of motor centers. But the movements which occur are not like ordinary reflexes, but consist of muscular tetanus or contractures. Stroking the skin of a muscular region causes the subjacent muscles to contract, and to remain in that state for some time, so that on the whole hypnotism may be called induced catalepsy. The application of the hand, if continued, may ultimately cause rigor of all muscles—a perfect opisthotonus. Dr. Berger was even able to limit this muscular rigidity to one side of the body, by applying his hand to one side of

the head. Generally the muscles of the opposite side of the body became involved; sometimes of the same side. Berger refers this difference to the variations in the pyramidal decussation, but all such explanations seem to us premature. Whenever but one side of the body was convulsed the other side appeared paretic. Thus the peculiarities of the hysterical state, increase of function on one side of the body, and diminution on the other, could be imitated. There also existed, sometimes, hyperæsthesia on one side, anæsthesia on the other.

We deal here with observations by reliable men which cannot be denied, although they should be received with reasonable scepticism. The number of facts is yet too small, their mutual dependence yet too obscure, to permit explanations. Indeed the Breslau observers have abstained from theorizing. However, the impression is inevitable that hypnotism depends on an inactivity of the cortex of the hemispheres, or at least a decided disturbance in its function. Heidenhain compares the hypnotic subject to a frog whose hemispheres have been removed, and finds that both instances are characterized by the regular occurrence of complicated reflex movements, not checked by the will. These researches promise to shed much light upon the pathology of hysteria, if not upon the entire domain of cerebral physiology.

GROWING FEVER OF CHILDREN AND ADOLESCENTS.*

BY DR. G. BOUILLY, PARIS.

Surgeon to the Hospitals.

We may assert, without fear of contradiction, that the etiology of primary acute inflammation of the bones (diffuse phlegmonous periostitis, osteomyelitis, juxta-epiphysial osteitis, etc.), is one of the least known portions of the history of this affection. Nearly all our knowledge is reduced to the following facts: On the one hand, a predisposition common to every young person, on account of the extreme activity of nutrition of the periosteum and the osseous tissue at this period of life; on the other hand, the influences of occasional causes common to every one, such as an injury in the vicinity of a bone or a joint, or a local or general chill.

But in many cases injury or chill are not present, and we are forced to have recourse to other modes of explanation, and to seek other causes. For a long time, the intensity of general phenomena before the appearance of the affection (since there can be no question as to the septicæmic complications originating in the bone), forced writers to admit that the osseous affection was only the manifestation of a general condition. Indeed, in a certain number of cases in which death supervened very rapidly, and in which the disease involved at the same time most of

the bones of the skeleton, the autopsy did not disclose the ordinary lesions of septicæmia.¹

It would be easy to multiply these examples.

All, or nearly all, the authors who have written on the subject, have admitted that there existed, besides the local lesion, a general condition of an undetermined nature which gave to the affection an especially grave character. Speaking of the prognosis of subperiosteal abscess, Chassaignac writes:² "That which increases the gravity of the affection is the circumstance that, in the greater part of the subjects, the affection is combined with a constitutional condition. This may depend on a diathesis, such as scrofula; may be accompanied by an eventual change of organism, like that which follows an eruptive fever having a pathological termination, or may indeed be the consequence of one of those temporary exhaustions due to a deep-seated mental disorder, or to excessive fatigues." And, starting from this idea, he gave to the disease the name of Typhus of the Limbs, Surgical Typhus, a name which should be retained, because it indicates a general symptom as important as the local lesion itself, which, far from being the cause, is only one indication of this condition.

In the same way Professor Gosselin thinks that it is always necessary to admit an especial vitiation of the blood by too rapid growth, to explain all the grave symptoms.

Boeckel and Roser admit a dyscrasic cause, but do not give any further explanation of its nature.³

M. Spillman, in an excellent critical review,⁴ notices the necessity of admitting two forms of acute osteitis: I. An acute typhoid osteitis; II. An acute inflammatory osteitis. When typhoid accidents show themselves from the beginning, death is almost certain, although the medullary canal does not contain pus. On the contrary, if the general symptoms do not exceed those common to inflammatory fevers, rapid death will be the exception; sometimes the recovery is rapid, or the disease becomes chronic. This distinction was also admitted by M. Ollier, of Lyons.⁵

M. Culot,⁶ on the contrary, rejects all general influence, and finds that it is not necessary to call up some unknown, intangible cause to understand the series of accidents and anatomical lesions of medullitis. An injury brings on a local inflammation; the exudations bring on the general conditions.

We think that there is much to be said against these too absolute conclusions.

In an important paper read last year before the Academy of Medicine, M. Lannelongue rejects as etiology of osteomyelitis, the scrofula, rheumatism, and pseudo-rheumatic fever of Roser, admitting only

¹ Schutzenberger, *Gaz. hôpitaux*, 11 Octobre, 1856. Chassaignac, *Traité de la suppuration et du drainage chirurgical*. t. I, obs. 146.

² *Loc. cit.*, p. 444.

³ *Gaz. med. de Strasbourg*, 1869.

⁴ *Archives de Médecine*, 1873, p. 606.

⁵ *Thèse de Sexary*, Paris, 1870.

⁶ *Thèse de Paris*, 1871.

* Translated from *Revue Mensuelle de Médecine et de Chirurgie*, September, 1879, by S. C. Stanton.

physiological irritation, assisted by bad hygienic conditions, and, above all, by the influence of moist cold, with or without injury. Our teacher, Professor Panas, in the able report which follows this communication, admits the probable necessity of septicæmia in cases having a grave typhoid form. This septicæmia seems to have been demonstrated by the experience of Maas and Th. Kocher. These writers have remarked that destruction of the medulla, whether in animals or men, was followed neither by necrosis nor by grave general accidents when it was performed with the precautions of the antiseptic method. On the contrary, the injection into the medullary canal of septic liquids containing bacteria, brought on necrosis and a rapid death by putrid osteomyelitis. The same accidents occurred when animals were fed upon septic substances, even when all antiseptic precautions were taken near the experimental wound. Th. Kocher admits, also, in cases of osteomyelitis, a primitive infection of the blood, and considers that the points of entrance of the infectious germs are at the various mucous surfaces, and, in particular, the œsophagus, lungs, uterus and bladder.

One can hardly help accepting these ideas, which have been confirmed by experiment, in cases where there are at first multiple lesions, occupying at the same time many parts of the skeleton, where the general phenomena acquire an excessive acuteness at the outset and where the rapidly fatal termination is not caused by purulent infection. These cases of multiple osteomyelitis are not at all rare, and, without recounting the numerous sources, I have found already four cases in the work of Chassaignac (obs. 143, 144, 146, 166), and one case reported by Schutzenberger.¹ Elsewhere I report two observations of cases of this nature. In another case (Chassaignac, obs. 144), besides a sub-periosteal abscess of the tibia, there was a tendency to suppuration at several points; that is to say, multiple abscesses, one on the breast, the other on the arm. In the case of a boy seventeen years old (Chassaignac, obs. 143) affected with sub-periosteal abscess of the tibia and femur, an erysipelatous condition complicated the sub-periosteal abscess, so that there occurred swelling, inflammation, tension and superficial fever, which do not commonly exist in sub-periosteal abscess.

This liability to a multiplicity of lesions near the osseous tissue, the cellular sub-cutaneous tissue and the skin leaves hardly any doubt as to the primarily infectious nature of the disease in certain cases. What is the miasma which produces this intoxication? What is its point of entrance? It is an unknown which the future will perhaps disclose. But certain observations may perhaps show some interesting relations between this grave affection and other less severe forms which seem to be only abortive forms of the same disease. This is the way, at least, in which we believe we can explain certain troubles which supervene during the period of growth;

troubles generally inexplicable, comprised under the vague name of Growing Diseases and Growing Fever, and which neither resemble in form a morbid entity nor a distinctly marked anatomical lesion.

It is commonly known that the size of young persons is sometimes very rapidly increased after febrile affections. "Et in universum febris præceps incrementum facit, quid etiam vulgo natum est" (Haller). The same fact has been described by Van Swieten² and Buffon,³ and observed by a number of writers. From Gendrin⁴ the following extract is made: "The febrile reaction in young subjects shows an increased activity of the organic functions which renders their revolution more rapid; this is why diseases generally give a greater impulse to the growth of the body." In an old and almost forgotten treatise on Diseases of Children, Richard de Nancy,⁵ speaking of this rapid growth following fevers, introduces, after a specious explanation of the phenomena, this phrase, which appears to me very judicious, and which I retain because it seems to agree with the real facts: "The inflammation has also predisposed all the tissues to a certain weakness, which renders their growth more easy and permits the nutritious fluids to penetrate them." Thus is explained the phenomenon of extraordinary physiological growth.

We think also that certain local and general troubles depend upon growth, and willingly accept the definition given by M. Regnier⁶ to the diseases peculiar to the growing period: "By diseases of the growing period, we do not mean diseases which show themselves during development and upon which the age impresses a particular stamp, but we understand them as those affections which are directly the result of too rapid and irregular growth either of the mechanisms or the organs." MM. Rilliet and Barthez admit also that at certain periods there is more activity of growth than at others, and that it especially affects certain organs, and that this temporary excitement is not always without danger.

The congestive foci are formed principally in the osseous tissue, near the extremities of the long bones, and by unknown influences which may lead to inflammation and coincide with febrile accidents connected or not with some distant lesion. It is to these accidents, we believe, that the name of growing fever should be given. Examples are common, and since my attention has been directed to this subject I have collected many.

The phenomena are of different kinds, and should be distinguished from one another.

I. In a good number of cases, on the occasion of any insignificant affection, as slight angina, or febrile

¹ Physiologie Elements, t. VIII, l. XXX, sect. I, p. 39.

² Van Swieten, t. 14 and 40, and Commentaries, and 107.

³ Buffon. Œuvres complètes annotées par Fleurens.

⁴ Gendrin, Th. de concours. 1840, t. II, p. 42.

⁵ Richard de Nancy, Paris, 1839, p. 212.

⁶ Regnier, Des maladies de croissance, th. de Paris, 1860.

¹ Gaz. Hôpitaux, 11 Octobre, 1856.

derangement of the stomach, there is produced an increase of the fever, which is very intense, lasting from twenty-four to thirty-six hours or more, apparently brought on by the local lesion. But besides, the affection manifests an intensity out of proportion with the slight disease. During the attack, and for two or three days after, there exists great tenderness on pressure in the vicinity of the great epiphyses, femur, tibia and humerus. If care is taken to measure the patient before and after the attack, it will be found that he has grown a centimeter or a centimeter and a half. This is the most common form, noticed generally by most writers as following febrile affections of a certain duration, and which can be demonstrated, as I have explained, after a single attack of fever.

II. In a second form the fever seems to constitute all the disease, and the juxta-epiphysial determinations are apparently wanting.

I have lately observed two young girls who have been affected by accidents of this nature, at certain intervals. One is thirteen years of age, the other seven; both are large, well developed and enjoy perfect health. These accidents consisted of a series of attacks of intermittent fever, tertian in the case of the one, and quotidian in the case of the other, commencing by a chill in the morning, followed by fever and ending before night in profuse perspiration. At the same time pressure in the vicinity of the great epiphyses caused very apparent pain, great at the period of the attacks, less noticeable in their intermissions, and, what is remarkable in the cases of these two children, there was in eight days an increase in height of two and one-fifth centimeters. These attacks yielded to sulphate of quinine, careful nursing and rest, but the convalescence was complicated with a state of lassitude and marked weakness, and was of much longer duration than would be supposed after only eight days of sickness, in the case of children of good constitution and ordinarily perfect health. This was, I believe, a species of growing fever, probably in connection with a congestive condition of the epiphyses.

Many analogous observations are found in the older works of Daignan¹ and Duchamp.² M. Bouchut has cited the case of a child twenty-five months old, who grew eight centimeters in six weeks, meanwhile suffering from remittent fever accompanying, as the author believes, the growth.

I add to these facts the following observation: A boy five years of age, turbulent, noisy, and healthy, whom I had often had occasion to see, was suddenly attacked in the midst of play, by a sharp pain near one of his knees. This did not allow him to walk or to move his leg during the evening, in the course of which a slight attack of fever occurred. The night and the next day passed without change. I had many times been puzzled to know the cause of this sudden pain,

and had examined the knee thoroughly, thinking the presence of a foreign body possible, but later, analogous conditions of the opposite side were manifested, and pressure showed me that the seat of the greatest pain was not around the articulation, but upon the femur in the epiphysial zone. I now think that it was caused by a momentary congestion near the epiphysis which excited the pain and functional loss of power, and caused the febrile condition. I intend to accurately measure this child at the precise time of the painful attack, and on the next day when it is over.

Like facts have been already observed, though no special attention has been paid to the subject. In the treatise of M. Regnier, we find the following case (obs. II, p. 56, *résumé*): A child who had remained very small up to the age of fourteen, was suddenly attacked with pain in the tibio-tarsal articulation, which successively involved all the joints. The pain was so severe that the patient was obliged to remain absolutely immobile, but was not accompanied by febrile or other conditions. In six months he increased in height from fifty to sixty centimeters.

This absence of fever might suggest the thought that it was caused by acute articular rheumatism; it is very probable that the patient had a series of congestive, juxta-epiphysial inflammations of the bone, which gave place, in six months, to this enormous increase in height.

I am then, in brief, disposed to believe:

I. That there may be among young people, fevers which are caused by congestive foci in the vicinity of articulations in the epiphysial zone;

II. That these foci may be apyretic, and may only betray themselves by the pain and increase in growth;

III. That this is the weakest form of osteomyelitis of children and youths, and of the juxta-epiphysial osteitis of Professor Gosselin;

IV. That we perhaps have in this a plausible explanation of those fevers called growing fevers.

I close this article, already too long, by an abstract of two remarkable cases in which the multiplicity of lesions necessitated the idea of a general affection, and rendered therapeutic measures almost useless.

Obs. I.—During last year my excellent colleague and friend, Dr. Peyrot, requested me to see, at a *pension* in Rue Picpus, a young girl thirteen years of age, ordinarily in good health, who while taking the usual Thursday promenade was suddenly attacked by an extremely intense fever, and general pain in the limbs. A few days after there was found: *a*, Osteomyelitis of the left clavicle, which was treated by large incisions, and healed slowly after elimination of the bone; *b*, A painful swelling near the lower extremity of the right humerus, terminating in an abscess, which was opened and healed very slowly; *c*, A painful swelling of the inferior extremity of the right femur.

A few days later the right knee-joint began to

¹ Daignan, *Tableau des variétés de la vie humaine*, 1766.

² Duchamp, *Maladies de croissance*, 1823.

swell, and became the seat of a very painful effusion, with redness of the skin, and pain on the least movement or touch. The abatement of this inflammatory and adynamic phenomena not being induced, although large incisions were made near the clavicle and humerus, we suspected that they were retained by the probably purulent arthritis of the knee.

An aspiration was made with the aspirator of Dieulafoy, and a considerable quantity of thick, sero-purulent fluid drawn off, in which, on standing, a considerable amount of pus was deposited. The whole limb was immobilized in a very solid and fixed compressive apparatus.

The effusion recurred and was successfully treated by compression; the femur retained its enlargement at its lower extremity, but without producing an abscess, and after a long time the patient recovered, a considerable portion of the left clavicle having been removed. A little stiffness of the right knee and an indolent swelling of the lower extremity of the right femur still remained.

I think that we have here simply an example of the conditions which I have described above, the lesions more or less advanced having been shown to follow the affected parts; here a total suppurating and necrosial osteomyelitis, there a superficial osteomyelitis, perhaps indeed a simple periostitis, elsewhere osteomyelitis with hypertrophy of the bone without supuration, showing arthritis of the surrounding parts, which afterward became purulent. The child was placed under excellent hygienic conditions; she was isolated in the infirmary of the *pension*, which opened upon extensive gardens, and recovered.

Obs. II.—Much more sad is the history of a boy, fifteen years of age, who entered the Hôtel Dieu on the ninth of last May, during the service of M. Cusco, whom I have the honor of succeeding. Despite the categorical affirmations of Chassaignac, who considers that osteomyelitis never has a prodromic period, there existed, prior to the violent manifestation of the local accidents in this case, a series of general phenomena which indicated that the entire organism was involved. From information given by the mother I learned that a month before the child had frequent attacks of epistaxis; May 3, he vomited without appreciable cause, and began to be slightly delirious at night; May 5, he had a chill and profuse epistaxis; May 6, he complained of a dull pain in the left shoulder; his general condition grew worse and worse, the fever was intense, with slight irregular chills, and on the next day the child entered the Hôtel Dieu, in the department of medicine. On May 9, when transferred to the surgical department, he presented: *a*, An extensive painful swelling, which implicated the left scapula, and gave him the appearance of scapulum alatum; *b*, A painful swelling of the upper third of the right tibia; *c*, The signs of an extensive pleurisy of the left side. An incision was made above the scapula; no purulent matter or other fluid flowed from this wound.

May 11. An incision was made at a point on the tibia near the anterior tuberosity of the bone, at which fluctuation could be detected, which was followed by a small quantity of pus, and exposed the denuded bone.

May 16. Professor Richet opened into an enormous subscapular collection of purulent matter, and demonstrated the denuded bone and the mobility of one piece of bone which floated freely in the pus.

May 19. There was a little cedema and redness in the vicinity of the left external malleolus, and a little tenderness and swelling at the level of the inferior extremity of the left femur.

On the morning of May 20, I opened into an extensive collection of pus, at the bottom of which I felt plainly the third left rib and the transverse process of the third dorsal vertebra.

On the morning of May 22, the first pyæmic chill occurred, which the irregularity of the temperatures taken during the night had made me fear. There was now no hope for the patient. The chills recurred at frequent intervals and the patient died on May 25.

The autopsy showed: *a*, A purulent inflammation of the left pleura; *b*, In the parenchyma of both lungs there were about thirty small abscesses placed around the bronchi and bronchial tubes. None were situated on the surface of the lung, and none presented the characteristics of metastatic abscess. The other internal organs, the liver, spleen and kidneys, contained no traces either of abscess or of infarctus; *c*, Osteoperiostitis of the scapula, with denudation of the periosteum throughout the subscapular fossa. Two small sub-periosteal abscesses in the infra-spinous fossa and a denudation of the marginal epiphysis of the bone, which was infiltrated with pus; *d*, Extensive osteomyelitis of the tibia. The medullary canal was full of pus. In the spongy tissue of the upper extremity of the diaphysis, under the epiphysial cartilage, which appeared healthy, two zones, each of the size of a franc and infiltrated with pus, could be seen. In the compact tissue the Haversian canals appeared to be enlarged; the pus which had accumulated between the bony walls of these little canals had destroyed them in part. There was also an irregular concavity of the bone. The superior and inferior epiphyses were perfectly healthy; the supuration did not extend above 1° below the epiphysial cartilage. The articulations of the knee and foot remained healthy; the articular cartilages were polished and unctuous as in their normal condition.

There is much to be deduced from this observation upon the significance of the signs indicated by Chassaignac. I refer in this regard to a series of lectures made by Professor Richet on this patient, which closed with these words:¹ “What was the real cause of the death of this unfortunate boy? It might be said that he succumbed to the multiplicity and extent of the osseous and visceral lesions. There was in his

¹ See Gazette Medicale, Nos. 23, 24 and 28, June and July, 1879.

case a general tendency to suppuration, which manifested itself at the same time in the pleura, in the lungs, and upon many of the bones of the skeleton. All these lesions which have combined to bring about the fatal result I attribute to a general affection, which I should unhesitatingly call growing fever of adolescents."

I agree entirely with this idea, which has forced itself upon my mind for some time¹, which I have endeavored to support in this article, and which I am happy to be able to strengthen by the name of the learned professor of the clinic at the Hôtel Dieu.

CLINICAL REPORTS.

REFLEX PARALYSIS CAUSED BY CON- GENITAL PHYMOSIS.

*South Side Dispensary.—Service of D. A. K.
Steele, M.D.*

REPORTED BY H. B. HEMENWAY.

Eddie F., age nineteen months, was brought to the South Side Dispensary December 23, 1879. The mother was unusually healthy in appearance. Age 26. Has had one other child, a girl, three years old, healthy. The mother has had no miscarriage. So far as she knows none of the child's relatives have had any constitutional disease.

The boy began to try to walk when between fifteen and sixteen months old; was slow to learn. The mother had noticed a little eruption around the lumbar region; never thought anything was the trouble with him before he tried to walk. The first symptom noticed was weak back; back abnormally sensitive in the lumbar region; was peevish and cried much; micturated often. As the child walked more there was a very perceptible "drag" of the right foot; this was rapidly growing worse when he was brought to the dispensary.

Upon examination it was found that the muscles of the right thigh were atrophied, especially the gluteal group. There was congenital phymosis. The prepuce was long, redundant and much hypertrophied. Only a very small sized probe could be passed into the meatus. When the child micturated the urine came drop by drop, with ballooning of the prepuce. The child had had two falls about the time he began to walk. (The mother did not remember this until the child had nearly recovered.) The hip-joint was free in all its movements; there was no other sign of morbus coxarius than those before stated. There was no indication of scrofulous diathesis.

Diagnosis: Reflex paralysis, due to genital irritation from congenital phymosis.

Circumcision was performed December 30, simply cutting off the redundant prepuce, slitting the dorsum of the mucous membrane, and bringing it in contact with the integument by means of three silk sutures.

¹ Gazette Medicale, No. 26, June 1879, De l'osteomyélite et des abcès des os.

Extensive adhesions were found between the glans and the prepuce. Two indurated pieces of smegma were found under the prepuce and removed. A simple dressing of cosmoline was applied.

Jan. 8, 1880. Considerable œdema still present. Sutures removed. Micturition free, three or four times a day. No perceptible change in the walk.

Continued to improve for about six weeks, no medication being used. The only abnormal symptom remaining was a little stiffness in the lower portion of the spinal column. During the latter part of February the mother reported that the child was under treatment in another department for a "bad cold on the chest," which was taking his strength, and the old symptoms were beginning to return. Was directed to keep the child well protected and await the result of the cold.

March 6. Cold gone. Boy becoming stronger; does not drag his foot; stiffness of the spinal column gradually diminishing. Patient discharged very greatly improved.

Crushing Injury of the Arm. Amputation at the Shoulder.

BY J. B. MURPHY, M.D.

House Physician Cook County Hospital, Chicago.

The patient stated that at 3 o'clock P.M., October 2, while attempting to board a moving train, his foot slipped and he fell, with his body parallel to the rail and his left arm thrown across it. Two wheels passed over the arm; he then drew it from its position and started to walk away. He had gone only a few rods when he fell down; he again regained his feet, but was so faint that he remained standing only a few minutes, when he again fell to the ground. Stimulants were administered and a medical attendant called. He was then taken to his home, where he remained about three hours without any dressing on the arm. From his home he was brought to the hospital, arriving about 9.15 P.M. On his admission he was suffering considerable pain, and was given $\frac{1}{4}$ gr. morph. sulph. hypodermically. (This dose had a profound though not toxic effect, and foreshadowed the susceptibility which the patient subsequently developed.) On examination it was found that there was a compound comminuted fracture of the left humerus, involving its entire upper half, and also that all the tissues of the arm were entirely crushed and severed except a small tongue or isthmus of integument on the outer aspect of the arm, and another, similar, on the inner aspect, the latter covering the large vessels and nerves of the arm, which were intact, as was evident from the fact that the radial pulse and the sensation of the hand were good. The crushed member was cleansed as thoroughly as possible with a 2½ % solution of carbolic acid, and enveloped in the antiseptic dressings, the whole being still further wrapped up in cotton, and warm bottles being placed around it and the body. The patient then slept quietly until the house surgeon (Dr. Bergen) arrived at 10.30 P.M.

After a consultation of the house staff of surgeons, Dr. Bergen performed a shoulder-joint amputation by transfixion, Dr. J. B. Murphy controlling the axillary artery with his hands in such a manner that not more than a drachm or two of blood was lost, and but a very small quantity of blood escaped from the small vessels by oozing during the entire operation. External and internal flaps were made. The tissues left by the injury were so scanty that the flaps were necessarily formed, in large part, of integument and subcutaneous tissue bordering immediately upon the crushed tissues, and dissected up from the underlying structures. To a considerable extent the edges of the flaps were left exactly as they had been fashioned by the original injury. Since there was too little tissue to admit of any sacrifice, and the edges of the tissue bordering on the wounds seemed to be quite cleanly cut and but little contused, this circumstance is of considerable interest, in view of the subsequent union of the flaps without any sloughing whatever, since such tissue, lying thus in close proximity to the seat of contusion in a railroad injury would ordinarily be expected to slough to a considerable extent. Two small vessels and the axillary artery were tied with catgut ligatures, a drainage tube was passed through the bottom of the wound, and the flaps accurately adjusted and united by silken stitches. The entire operation was conducted strictly in accordance with the antiseptic method, and the stump was dressed antiseptically.

October 3. One-sixth gr. of morph. sulph. was administered hypodermically in the morning and repeated at 7 P.M. At 11 P.M. the patient's pulse was 160, and temperature 104.8. On the next morning $\frac{1}{8}$ gr. of morph. sulph. was given hypodermically. At 7 P.M. pulse was 120, temperature 104.5. In the afternoon the stump was dressed. It looked excellently, with very little discharge and no sloughing. The wound was partly united by first intention. Another injection of morphine, $\frac{1}{8}$ gr., was given on account of severe pain. Shortly after this dose the patient began to manifest symptoms of opium poisoning; was drowsy and stupid, pupils contracted, respiration slow and sighing. In the evening he was delirious and restless. Retained nothing on his stomach. Dullness and bronchial breathing continued over the right side. Suspended morphine entirely, but increased the doses of quinine and whisky per rectum. At nine o'clock, as the symptoms of opium narcosis became constantly more marked, pupils contracted to a pin-point, respirations and stupor profound, although he could be aroused, atropia sulph., $\frac{1}{120}$ gr., was administered by hypodermic injections. At ten o'clock the pulse was very rapid, pupils dilated to their maximum, respirations thirty-six per minute, face bright scarlet and very hot; markedly delirious.

Oct. 5, A.M. Pulse 124, temperature 104. Was still delirious. Ordered the head shaved and an ice-cap applied. At noon he appeared better, but was still delirious.

Oct. 6, A.M. The delirium was more boisterous, in fact almost maniacal. Discontinued the quinine and whisky, but continued the enemata of beef tea. In the afternoon he ate and retained some crackers. At 10 o'clock P.M. he was still delirious; had had but little natural sleep since the operation, and none during the previous 48 hours. Administered potassi bromidi, gr. 75, per rectum in beef tea.

Oct. 7, A.M. Slept well last night. Slept quietly almost all day. Eats well and does not vomit.

Oct. 8, A.M. Slept quietly during the night. Ate some breakfast this morning; feels no pain, except a slight stinging sensation in the stump. Bowels moved freely this morning.

Oct. 9, A.M. Slept well last night. No vomiting. Had three quinine powders during the night; ordered three more during the day.

Oct. 10, A.M. Slept well, feels well, eats well. In the afternoon the flaps were doing nicely and most of the stitches were removed. The stump was regularly dressed, with great care, every alternate day since the operation. There has been no sloughing, only a moderate amount of discharge, and the flaps are united very accurately and readily, largely by first intention.

Oct. 20. So far as his general condition is concerned he is as well as ever. Is running about the ward all the time. Eats and sleeps well. The stump was dressed to-day; it is looking well. Removed the drainage tube and substituted a small parcel of horse-hairs.

Oct. 25. Dressed. Removed the horse-hair and applied lint and cosmoline, and outside of this several layers of the antiseptic gauze.

Oct. 27. Removed all dressings except the lint and cosmoline. Practically, the stump is entirely well, there being only one or two very minute points of granulation uncovered.

Oct. 28. Discharged cured.

One very interesting and marked element of this case is the extreme susceptibility of the patient to the influence of drugs and other agencies. This was illustrated to a certain extent by the profound narcosis produced by the morphine; although in this particular the effect was really not so surprising, as he had received in all $\frac{5}{8}$ gr., in divided doses, during 40 hours—a large quantity for a boy 12 years old; but in case of the atropia $\frac{1}{120}$ gr., followed within an hour by the full physiological action of the drug in spite of the marked opium narcosis existing at the time of its administration; and in the case of the bromide of potassium, followed also in an hour's time by deep and seemingly natural sleep, lasting, with but little interruption, for 30 hours, with total and prompt cessation of the delirious symptoms, there is certainly exhibited a susceptibility to the action of remedies which is not very common, and it is not unlikely that the wild and persistent delirium was due to the same circumstance; although just what constituted its exciting cause or causes it is, perhaps, impossible to determine.

CORRESPONDENCE.

HAHNEMANIA.

CHICAGO, March 31, 1880.

The following is a specimen of the letters which were elicited by my article on "Remedies of Vegetable Origin."

THE HAHNEMANNIAN MONTHLY,
PHILADELPHIA, March 25, 1880.

DEAR DOCTOR—I am very glad to see that you have been reading a homœopathic work by your article on Pulsatilla in the Chicago Medical Gazette. In Hahnemann's *Materia Medica*, translated into English nearly fifty years ago, you will find that it was used for dysmenorrhœa and many other symptoms by Hahnemannians. No objection to your using or publishing all such facts, but it would look better to give the proper authority due credit for the same.

Yours very respectfully,
B. W. J., Business Manager.

My article was simply a record of individual and independent experiences with, and an effort to revive the use of drugs which had fallen somewhat into disuse, each one of which, except perhaps cactus, is as old as the adamantine hills. Even if it had been possible, it would have been unnecessary in such an article to go back to the time when these agents were first used in medicine, and I believe to do so would elude the historical clairvoyance of Hahnemaniacal hallucinations. I thought I had certainly gone pretty far back when I mentioned the names of Dioscorides and Pliny. It is certainly a medico-historical convenience to be able to refer everything to Hahnemann. In early childhood I thought everything originated with my grandmother; but since then I have been told that *she* had a mother and a grandmother too!

It is a singular fact that the lawyer who experienced such relief from his headaches, from pulsatilla, should be almost persuaded by a professor in one of our homœopathic colleges not to use it because, he said, it was a woman's remedy! Pulsatilla is like an axe. Medicine has always used its edge. Hahnemann reversed the process and his disciples are trying to chop with the handle.

Will some one be good enough to define homœopathy? I do not ask for a biographical sketch of Hahnemann, who is falsely accredited with its authorship, nor an exhibition of so well known and typical a disease as Hahnemania. The reason I ask is that I cannot understand how a system which is said to be founded on an inflexible and universal law should differ so widely when applied to practice by its advocates.

Only this week I attended a lady patient who had been nearly narcotized by small-doses-frequently-repeated of opium administered by a homœopath whose medical skill is lauded to the skies. Not long ago I attended a young man who had been badly salivated by *mercurius dulcis*. The dose was infinitesimal of course. During the past year I have several times seen bromism, cinchonism and narcotism in the families of homœopathic practitioners of the

best standing. Why not abandon every "pathy" at once and stand upon the broad platform of classical medicine? Classical, cosmopolitan medical art is as constant and as true as the laws of harmony. Though "sometimes impertinently, often ignorantly, often carelessly, called allopathy, it appropriates everything from every source that can be of the slightest use to anybody who is ailing in any way, or is like to be ailing from any cause." Hahnemann was probably honest in his effort to inaugurate a new method or organon of medical thought and practice. The times in which he lived may have afforded him ample justification. It augurs ill, however, for the ultimate triumph of his theories, when we think that they, like mysticism, animal magnetism, Brunonianism, Broussaisism, etc., had their birth at a time of general, social, political and ecclesiastical, as well as pathological and therapeutical lawlessness. And, now that medicine is completely reorganized, homœopathy and all other fancy systems are carried about on the body medical "like an old wen," and it may be said of their authors, as is said in Owen Glendower's story: "The earth shook at your nativity, did it? Very likely, and so it would have done at the same season, if your mother's cat had kitteded, though yourself had ne'er been born."

JAMES I. TUCKER, M.D.

50 Douglas Place, Chicago.

CHICAGO MEDICAL SOCIETY.

Report of the Special Committee on Abuses of Medical Charities.

At a meeting of the Chicago Medical Society, February 5, a paper was read by Dr. Park on the Abuses of Medical Charities (and published in our issue of March 5). At that time a committee, consisting of Drs. Powell, F. H. Davis and Schaefer, was appointed to report at a subsequent meeting such plans or suggestions as they might deem best. At a special meeting held March 22, they offered the following report and resolutions, which were adopted by the society:

Your committee have considered carefully the statements and points made in the paper of Drs. Park and Hatfield, read before you, and they regret to say that they can find in it no evidence of any exaggeration or prejudiced misstatement of facts; that is, they regret it, because it leaves before them a plain and unvarnished statement of the present condition of administration of medical charity, the realization of which is anything but encouraging. They find, on closer personal investigation, that at least one-third of the patients applying at dispensaries for treatment are in no way entitled to it, and that there is no adequate reason why medicine should be furnished to at least one-half of the remainder. They find that the task of attending the sick poor is by almost common consent relegated indirectly to the colleges, which are not slow to take advantage of the clinical material thus offered, and which, having extended

this branch of their work beyond all reasonable bounds, are in no small degree responsible for the present deplorable condition of affairs.

Your committee do not need to study this subject long to see that self-interest is at the bottom of this charitable display, and that it matters little to the colleges, i.e. to the individuals composing their faculties, who among the remainder of the professors suffer so long as they gain by it. For gain by it they certainly do, and in a way so readily appreciated that it can hardly be termed indirect.

They find that a somewhat extensive "ring" controls the administration of medical charity, and that within the "ring" a few older professors dominate over all the rest. Nor is this the case only in regular circles. It holds just as true among the "irregulars." Abundance of evidence convinces them that the trustees and officers of these institutions, both colleges and dispensaries, do not sympathize with any notion to correct the abuses alleged. Their notable absence from the meeting when the paper was read is of itself enough to indicate this. More than this, they positively take no action whatever, even though urged by those within and without the circle, and the committee find that such apathy as this, especially when the essential interests of the profession are involved, cannot be too severely censured.

The success of any remedy cannot be predicated until those who control these institutions display a spirit strikingly opposed to their present apathy. If it were possible to arouse them to action, and if this action could be made a concerted one, then a great deal might be done. And in the first place your committee, having a just and realizing sense of the needs of the pauper sick,—and there are multitudes of them,—desire to suggest only such remedies as shall properly limit medical charity. They consider that colleges might still be allowed to do the work, but that they should be held responsible to the profession at large for the proper administration of the same. The committee then would make the following suggestions:

First. That the younger men of the profession, as being more widely awake in the matter, should be given a governing voice in the regulation of dispensary affairs.

Second. That while the clinical teachers of a college should be allowed to make the best possible advantage and display of the clinical material properly available, those members of the profession not under the influence of that college, and who are yet so situated as to feel their own rights encroached upon, should have a fair representation in such governing body.

Third. That the dispensaries be so managed that all physicians in their neighborhood would be only too glad to see to it that the deserving poor found their way thither; feeling, on the other hand confidence in their management, that the compliment would be returned in a proper way, and that those who were able to pay would be refused.

Fourth. That some such plan be adopted as has been tried at the South-side dispensary, as stated by Drs. Hatfield and Park, of a close system of investigation by personal inquiry, and a careful and condensed and easily accessible record of each case. This, of course, involves a small expense, which either the dispensary or the public ought to defray.

In lieu of this plan it has been suggested that patients who appear needy be treated at their first visit, and then be given a blank form certifying that they are in positively indigent circumstances. This should be filled out and signed by their nearest physician, druggist, or priest before they were given any subsequent aid. And it would be better still if the two plans could be combined.

Passing from this part of the subject to another point mentioned by Dr. Park, your committee find a mass of evidence showing that the matter of druggists prescribing for a multitude of lesser evils, and dispensing at the same time, has not been at all overstated. One of the committee knows personally of a druggist who boasts that he treats more cases of venereal disease than any physician in his vicinity. And so it is with many others. Druggists and apothecaries all over the city pour drugs of which they know little into bodies of which they know less.

It is a matter of sincere regret that we have no stringent laws covering such actions, as they have abroad. The only legal redress would be to advise all who go to a druggist in this way to refuse payment, which could not be collected, inasmuch as no license to practice has been issued. The right on the part of some to victimize, and on the part of others to be victimized, seems to be inseparably connected with American citizenship. The physicians can, however, take this matter into their own hands, and, by supplying their own drugs, so materially decrease the patronage of the drug stores that the proprietors will see that it is for their best interests to come to terms.

In this connection the committee also call attention to the fact that druggists renew prescriptions time after time without authority from the doctor, and many times use these prescriptions for their own purpose, and will put up for a dozen different people the medicine that some physician has ordered for a special case.

Your committee are of the opinion that a physician's prescription ought to be regarded as his private property, simply lent or rented for the use of some particular person, and eventually deposited with some druggist, and that the latter should feel himself in duty bound to keep it as he would any private document committed to his charge, and on no account should he use it for his own personal ends. Also, that every one who has occasion to prescribe should endeavor to see to it that his prescriptions should be filled by some one upon whom he can depend in the matter.

Your committee thoroughly agree on what was said in the paper referred to concerning the relations

we sustain to the clergy. Doubtless the clerical profession is an eminently respectable one; doubtless they are instruments of much good, but we claim the same of our own profession; and no good reason can be assigned why the one should subsist on the other. The clergymen who are ambitious for city congregations and splendid churches, with proportional salaries, ought to be ashamed ever to think of accepting gratuitous services from a physician. Your committee are most heartily in favor of the maxim "Pay as you go" for the luxuries as well as necessities of life.

On the other hand, doubtless, some of the clergy are very poor, and doubtless some of them are terrific workers. The poor minister or priest who can not see during one week whence his next week's living is to come is deserving of all possible respect and assistance; and such a one will meet with ready response whenever he calls on our profession. The remarks made above are intended only for those of the clergy who make the same living that the rest of us do, and in the same way, by mental work. In concluding this report your committee would recommend that this society adopt and stand by the following resolutions:

Resolved, That this society holds that the trustees or managing officers of dispensaries owe it to themselves and the profession at large to adopt such means as shall most effectually prevent the wholesale abuse of medical charities.

It is understood that this resolution is not intended to militate against the proper administration of medical charities, but against gratuitous services to those not entitled to them.

Resolved, That when druggists exceed their proper function as dispensers and chemists, and act in the capacity of prescribers, they usurp a position to which they are not entitled either by experience, knowledge, or license, and that this society denounce all such as unworthy of the confidence of the public or the business recommendation of the profession, and advises that its members sedulously avoid any relations with them.

Resolved, That this society holds that a physician's prescription does not become public property after passing out of his hands, and should never be either repeated for the same patient or duplicated for another, except by the usual authority of the prescriber.

Resolved, We see no justice in treating the clergymen or their families gratuitously, unless they should become objects of charity.

Resolved, That the expenses of attending the sick poor, especially at their houses, ought to be borne as all other public expenses are; that physicians should be selected for this work without reference to personal feeling, but simply on the score of ability and character, and that they should be paid, from the public treasury, a sum sufficient to secure adequate and proper service.

STATE MEDICAL SOCIETIES.—In the Medical News and Abstract, April, 1880, the following list of state medical societies, holding their annual meetings next month, is given: Kentucky, at Lexington, May 4; Kansas, at Leavenworth, May 11; Michigan, at Grand Rapids, May 12; Illinois, at Belleville, May 18; Indiana, May 18; Missouri, at Carthage, May 18; and Pennsylvania, at Altoona, May 19.

REVIEWS AND NOTICES.

A PRACTICAL TREATISE ON NERVOUS EXHAUSTION (*Neurasthenia*); ITS SYMPTOMS, NATURE, SEQUENCES, TREATMENT. By George M. Beard, A.M., M.D. New York: William Wood & Co., 1880. Chicago: W. T. Keener.

In this book Dr. Beard has given us the first systematic treatise of any importance on a very important disorder, or rather pathological condition, that appears to be increasingly prevalent at the present time. In his introduction he claims that it is especially frequent in this country, that it is preëminently an American disorder, being much more frequent here than in Europe; that it is common among the well-to-do, and rare in the subjects of charity practice, and that it has been much neglected in our text-books and other methods of medical instruction. He also claims that it is comparatively a modern disease; that while some of its phenomena have existed for a century or more, its symptoms, as described by him, are surpassingly more frequent now than a hundred years ago.

Then follow seventy-five pages on the symptoms, which are very minutely described. The author includes among these hay fever and the various kinds of morbid fears that have been described under the names agoraphobia, claustrophobia, etc., some of which we are surprised to meet with in this connection. This part of the work is as comprehensive as it can well be in a volume of its size, yet we venture to say that any physician who has had a large experience in this class of cases could add more or less to it. The fact is, to our minds, neurasthenia is a condition that may be altogether protean in its manifestations, and may and does attend and complicate many organic nervous disorders. Hence the diagnosis of simple neurasthenia, when it exists, must be largely by exclusion, for it does not have any decided pathognomonic symptoms of its own. We do not mean to say that there is no utility in describing its various phases; they serve here, as would illustrative cases, to give an idea of the disorder; but this part of the book must not be taken as an exhaustive treatment of this phase of the subject. The third chapter, on the nature and diagnosis of nervous exhaustion, appears to us decidedly deficient, in that it gives altogether too little space to the pathology, which is very briefly discussed, and deserves more attention than it here receives. It is not that the author is incorrect in his views, so far as he states them, but they ought to be more fully illustrated and proven in a special treatise like the present one. Neurasthenia is such a general condition, such a convenient limbo into which to project indefinite and irregular cases of so-called functional disorder, that the fullest supply of facts that may afford a basis for ascertaining its real pathological nature is desirable. We are not absolutely certain that saying that its fundamental factor is a loss of balance between nutrition and waste of nerve-tissues is a sufficient explanation of

the condition on which this disorder depends. The chapters on prognosis and sequences and on treatment and hygiene are the best parts of the book. They are sensible and practical, and will be of service to whoever reads them. Dr. Beard's opinion, already noticed, that neurasthenia is rare among the poorer classes, and among other nationalities than the American, does not agree with our own experience. Whatever may be the case in New York, there is no question but that in this city it is by no means infrequently met with in dispensary practice, and in Irish, German, and Scandinavian subjects hardly, if any, less frequently than in Americans. Taking together all nationalities in the same social plane, it is not easy to say that the Americans are any more neurasthenic than the others in this section of our country. In conclusion, we would say of the book that while we cannot agree with all its author's statements and generalizations, it is an eminently readable and practical medical treatise on a very important subject, which, as he says, has hitherto received too little attention.

I. LESSONS IN LARYNGOSCOPY AND RHINOSCOPY, including the Diagnosis and Treatment of Diseases of the Throat and Nose. By Prosser James, M.D. Third edition, Lindsay & Blakiston, 1880. Chicago: Jansen, McClurg & Co.

II. SORE THROAT; Its Nature, Varieties and Treatment, and Connection with other Diseases. By Prosser James, M.D. Fourth edition, Lindsay & Blakiston, 1880. Chicago: Jansen, McClurg & Co.

I. The first of these works covers a ground which has been discussed in quite a number of manuals by other authors. The one before us is neither better nor worse than its competitors. All these little guide-books to the technique of the laryngoscope presume to deal with readers not very familiar with the subject. They spread before them a large choice of instruments, the description of which is, as a rule, not subject to the reproach of brevity. Our author does likewise, but is, on the whole, more precise than others. The chapter on diagnosis and treatment is quite general, and neither a substitute for, nor a supplement to, any detailed description in other works. Those, however, who desire merely a description of the technical methods, will find the book quite serviceable. The accompanying plates are fair. A very comical "slip" occurs on page 5, where the author speaks of persons "who are very binocular." He perhaps means that the refraction is not the same in both eyes.

II. The second book by the same author calls for a more critical paragraph. The first part of 120 pages contains a general sketch of sore throat, and a résumé of the methods of diagnosis. The latter is essentially identical with the smaller work noticed in the first part of this review. The manner in which the author handles the histology, and, now and then, the pathology of the organs considered is remarkable,

considering that all the descriptions of morbid states found in Part I occur also in Part II. This repetition seems useless. In former years this might have been called a practical book, since it is evidently not too theoretical, is apparently to the point, and has been written in clear language. But at the present day our requirements are of a higher order. Not only a description of symptoms, but also of pathological anatomy is needed, but it is not to be found in this volume. A certain completeness is also wanting; for instance, no mention is made of the occurrence of adenoid vegetations in the pharynx, a subject which has attracted much attention of late years. Therapeutic advice should be preceded by a precise statement of what the course of the disease would be without treatment. "Therapeutic hints and general principles" are very well, but much better is a clear description of the course of treatment. The author overwhelms the reader with suggestions of "what might be done, and what may prove useful." Strangely, cold-water applications are not referred to except in the treatment of croup. The chapter on laryngeal surgery is incomplete and routine. The plates are not ornamental.

BRAIN WORK AND OVERWORK. Dr. H. C. Wood, Clinical Professor of Nervous Diseases in the University of Pennsylvania, etc. Philadelphia, 1880: Lindsay & Blakiston. Chicago: Jansen, McClurg & Co.

This little volume (Number X of the series of American Health Primers) contains a large amount of common sense hygienic advice that ought to be of service to the class (the laity) to whom it is especially addressed. It gives in a brief but very readable way the principal points of the hygiene of the nervous system that the ordinary active business or professional man should attend to; it discusses the use of stimulants, habits of work and rest, and offers a very large amount of useful counsel as regards the care of the body and brain. The deserved professional reputation of its author will alone serve as a recommendation for the work to medical men, who will, nevertheless, probably notice some slips of statement that, while not impairing the value of the work as a hygienic guide to the laity, would yet have been better avoided. Thus the author makes a statement that, taken in its strictest sense, is new to us, when he says, on page 14: "Cut a muscle off from its connection with the nerve centers, and in forty-eight hours the microscope will show that its structure is altering. I have seen the buttocks slough from a man in a few days as the result of an affection of the spinal cord." In one or two other places we notice similar novel facts. But we can cordially recommend the book to our patients and non-professional friends, and it is not unprofitable reading for the physician. We trust it will have an extensive sale. It is elegantly printed and, considering its contents and its make-up, is very cheap at the price (fifty cents) at which it is offered.

BOOKS AND PAMPHLETS RECEIVED.

C. HENRI LEONARD, A.M., M.D. The Hair; its Growth, Care, Diseases and Treatment.

H. C. WOOD, M.D. Brain Work and Overwork. American Health Primers, No. X.

W. H. DAY, M.D. Headaches; their Nature, Causes, and Treatment.

GEORGE M. BEARD, A.M., M.D. A Practical Treatise on Nervous Exhaustion (Neurasthenia); its Symptoms, Nature, Sequences, Treatment.

PROSSER JAMES, M.D. Lessons in Laryngoscopy and Rhinoscopy; including the Diagnosis and Treatment of Diseases of the Throat and Nose.

T. H. BUCKLER, M.D. Notes on the Anatomical Relations of Uterine Structures; with Surgical Remarks and Therapeutical Suggestions. Reprinted from the Boston Medical and Surgical Journal.

EDWARD BORCK, M.D. Reflections upon the History and Progress of the Surgical Treatment of Wounds and Inflammations. Reprinted from the Transactions of the Missouri State Medical Association, 1879.

A. REEVES JACKSON, A.M., M.D. On some Points in Connection with the Treatment of Sterility. Reprint from Volume III, Gynecological Transactions, 1879.

A. REEVES JACKSON, A.M., M.D. Vascular Tumors of the Female Urethra. With the Description of a Speculum devised to Facilitate their Removal. Reprint from Volume II, Gynecological Transactions, 1878.

PROSSER JAMES, M.D. Sore Throat; its Nature, Varieties and Treatment; including the Connection between Affections of the Throat and other Diseases.

ALEX. J. C. SKENE, M.D. Gynecology as Related to Insanity in Women. From "Archives of Medicine," February, 1880.

Twelfth Annual Report of the New York Orthopaedic Dispensary and Hospital (for Children with Spine and Hip Diseases). 1880.

OFFICIAL LIST of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 13, 1880, to March 28, 1880.

Perin, G., lieutenant colonel and surgeon. Upon being relieved by surgeon Magruder, to report in person to Commanding General Department of Dakota for duty as Medical Director of that Department. S. O. 63, A. G. O., March 22, 1880.

Magruder, D. L., major and surgeon. Relieved from duty in St. Louis, Missouri, and to report in person to Commanding General Department of the Missouri for duty as Medical Director of that Department, relieving Surgeon Glover Perin. S. O. 63, C. S., A. G. O.

White, R. H., captain and assistant surgeon. Granted leave of absence for six months with permission to go beyond sea. S. O. 55, A. G. O., March 11, 1880.

Byrne, C. C., major and surgeon. In addition to his duties as post surgeon Fort Snelling, Minnesota, to take charge, temporarily, of the Medical Director's office at these headquarters. S. O. 30, Department of Dakota, March 20, 1880.

Girard, J. B., captain and assistant surgeon, Fort Davis, Texas. Granted leave of absence for twenty-five days with permission to leave the Department. S. O. 55, Department of Texas, March 16, 1880.

Finley, J. A., captain and assistant surgeon. Having reported in person at these headquarters, assigned to duty at Fort Adams, Rhode Island. S. O. 41, Department of the East, March 15, 1880.

McCreery, Geo., 1st lieutenant and assistant surgeon, (recently appointed) now at Fort Columbus, N.Y.H. To report in person to Commanding Officer Department of Arizona for assignment to duty. S. O. 63, C. S., A. G. O.

Schué, E. D., 1st lieutenant and assistant surgeon, (recently appointed) now at David's Island, N.Y.H. To report in person to Commanding Officer Department of Arizona for assignment to duty. S. O. 63, C. S., A. G. O.

Newton, R. C., 1st lieutenant and assistant surgeon, (recently appointed) now at Fort Stanton, New Mexico. To report by letter to Commanding General Department of the Missouri for assignment to duty. S. O. 63, C. S., A. G. O.

Cochran, J. J., 1st lieutenant and assistant surgeon, (recently appointed) now at Fort Wingate, New Mexico. To report by letter to Commanding General Department of the Missouri for assignment to duty. S. O. 63, C. S., A. G. O.

Sloan, Wm. J., colonel and surgeon, Medical Director Department of Dakota. Died at St. Paul, Minnesota, March 17, 1880.

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DR. WILLIAM E. QUINE, at the last meeting of the Alumni of Chicago Medical College, March 30, 1880, was elected president of the association.

Chicago Medical Gazette.

PUBLISHED ON THE 5TH AND 20TH OF EACH MONTH.

OFFICE OF PUBLICATION, 70 MONROE STREET.

TERMS, \$2 A YEAR, IN ADVANCE.

E. C. DUDLEY, EDITOR.

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Editorials under the heads of the special departments may generally be accredited as indicated above.

VOLUME I.

CHICAGO, APRIL 20, 1880.

NUMBER 8.

FACILITIES FOR CLINICAL INSTRUCTION are justly considered as among the chief objects of attraction to medical colleges. There is rivalry among these which impels each one to make on paper the most imposing display of clinical resources possible. The institution controlling the largest number of beds is commonly regarded as the best. We have no hesitation, however, in declaring that the prevalent methods of so-called clinical teaching are in no respect superior to didactic lecturing, and at best they constitute but a flimsy substitute for real, demonstrative bedside instruction. When two or three hundred students are seated in a hospital amphitheater, and witness the introduction and removal of patients and hear the explanatory remarks of the instructor, they fancy they are receiving clinical instruction. True, a tramp taken from the street would serve equally well as the subject of a clinical lecture on rheumatism, pneumonia, typhoid fever or valvular disease of the heart, with bona-fide sufferers from the diseases named. The nearest student is so far off that he cannot see a rose spot, and no opportunity is afforded him of listening to a crepitant râle. He is receiving in fact didactic instruction, and being entertained by a frequent change of faces. This is clinical instruction with all the clinical or bedside element left out. Students do not come into direct contact with patients, and it is impracticable for them to do so when their number is large. The only way in which the difficulty can be obviated is by dividing the class into sections and teaching the sections separately. This involves a great amount of extra labor, and as it is not associated with any opportunity for ostentatious display, it is not popular with the average teacher. A formal lecture is more agreeable to the professor than informal and individual instruction; it involves vastly less time and

patience, and affords greater opportunities for flourish. We do not see, therefore, wherein the formal clinical lecture is at all superior to the didactic lecture, and we do not see why it should not be regarded as a snare and a delusion. Very little genuine bedside instruction is imparted in the ordinary clinic, and this it is which gave origin to the truism that "Things are not what they seem." There is an inestimable advantage in small classes, for these may have what the term "clinical" implies—opportunities for personal examination. Our attention has often been directed into this channel through more or less frequent contact with the young graduates of Eastern colleges. These gentlemen average very well in point of book knowledge, but unless they have taken especial and private courses of instruction outside the regular clinical course, they are generally found to be utterly unacquainted with the practical use of the stethoscope, laryngoscope, and the various other instruments of physical exploration, and quite incapable of recognizing the simplest and plainest physical signs of disease. That this is the result of the indifference of teachers will be admitted, and that it is an inexcusable failure to do justice to the student and the community will be equally apparent. If good appearances are maintained, and the form of imparting practical knowledge is gone through; if there be good attendance and large dividends; there is precious little moral force expended in drilling the student in the practical details of his life work.

CLERGYMEN IN THE SICK-ROOM.—Doctors and clergymen sometimes come into collision. When this happens, it is either because of the bearishness of the physician, or the stupidity of the clergyman, or both. By the very necessities of his profession the physician must have authority in the sick-room. That he does

not have it, is often the occasion of discomfort and disaster. The minister, too, from the very nature of his calling and by the common consent of society, has a place in the sick-room. It is not, however, one of authority; and if he would serve his cause to the best advantage he should see to it that he makes no claim which shall interfere with what the doctor considers the patient's safety. Few people pass through severe sickness, fewer still approach the hour of death, without wishing to see and hear the voice of some minister of the gospel. This fact does not argue, however, that the clergyman may be admitted to the bedside at all hours of day and night, or even at all times when the patient desires. The minister, moreover, should remember that death-bed repentance is uncertain, and that it is poor policy to run the risk of killing a person by unguarded zeal for his everlasting peace. We have known instances in which the earnestness of the pastor at such an extreme hour was in great contrast with his common indifference when the bloom of health and clearness of mind were the possession of the one for whom he is now greatly concerned. We would venture to suggest that the minister leave as little as possible of argument and appeal for the feverish hours of sickness and dying. On the other hand, we have no sympathy in the harshness and heartlessness of which some physicians are guilty in their relations with ministers. They refuse to recognize existing facts, and thus go counter to the sensibilities of formal as well as genuine christian people. The necessary concessions are not all on one side, and if the physician does withhold the natural courtesies due to the sick and their spiritual advisers, he can find no fault if his wishes are disregarded and his authority circumvented.

HERBERT SPENCER AND YALE COLLEGE.—President Porter, Dr. Barbour and Prof. Carter represent the theological sentiment of the college; Prof. Sumner and his followers, the scientific. Prof. Sumner teaches the senior class, and in the exercise of a privilege which has always been accorded to the professors in that institution has selected as a textbook, contrary to the judgment of the theological party, Herbert Spencer's *Principles of Sociology*. One half of this book is devoted to a consideration of certain subjective difficulties which stand in the way of social progress, such as the educational bias, the bias of patriotism, the local bias, the class bias, the political bias. But it is the chapter on the theological bias which has set the college on fire, and which, according to a New Haven letter in the New York Times, contains doctrines and phrases which the orthodox members of the faculty consider as being unfriendly

to the Christian religion, or as treating all religions with impartial contempt. If, as we are told, these professors believe that Christianity has nothing to fear when viewed in the light of scientific truth, that God will take care of the faith which he has established, and that a returning wave of calmer reason, enlightened by faith, will sweep back the irreligious doctrines of the evolutionists, the biologists and the sociologists, their position is unworthy of the dignity of the great college which they represent. Believing that the truth is on their side, they certainly may expect to wage a successful warfare against the devil, even though he were represented by the irresistible logic of Herbert Spencer and Prof. Sumner. Let them expose the fallacies of this heterodox teaching and talk less about the light of truth. Instead of anticipating this returning wave of calmer reason enlightened by faith, which is to sweep back so much of what they call irreligion, they would do well to indulge themselves more in this "calmer reason" and talk about it less. When they have been victorious, the cause which they represent may be the stronger for the fight. It is possible that these theologians are giving themselves unnecessary anxiety. Some of their opinions when examined in the light of truth may prove as false as anything in Spencer. The spirit which they manifest is not unlike that which made Galileo declare "The world does not move. But it does move."

AN APOLOGY.—Our amiable friend, to whom we have been indebted for a vast deal of current information and many kindly encouragements, The Medical and Surgical Reporter, of Philadelphia, Pennsylvania, U. S. A., has taken exception, we are grieved to learn, to a squib that recently appeared in our columns from the pen of one of our most promising students. The objectionable article criticises the practice of giving, habitually, in cases of severe suffering, half a grain to a grain of morphia hypodermically for a dose, a practice which one of the contributors to The M. and S. R. of P., P., U. S. A., advocates, and the editor of that widely circulated periodical approves. We are sorry and ashamed that we are only a western journal. We are ashamed of the presumption of our young man. We told him that The M. and S. R. of P., P., U. S. A., did not approve of him. He was very appropriately overcome with confusion. We told him that it would be exceedingly becoming in him to subside. He promised to do so. We told him The M. and S. R. of P., P., U. S. A., was of the opinion that he did not know what he was talking about. He promptly agreed to the proposition. We informed him with some asperity that The M., etc., was one of our brightest scientific

lights,—one of our most reliable guides in therapeutics,—an indispensable aid to the profession,—and that no liberties must be taken with it. A look of idiotic incredulity and perplexity came over his face, as he asked, in a subdued way, to be excused from taking any in his. We regarded this as a rebellious indulgence in slang, and promptly dismissed the young man from our tutelage. We are sorry. We desire to make amends. Half a grain of morphia, hypodermically, is really a very small dose, and a grain, administered in the same way, is only moderate. We hope, hereafter, to be on amicable terms with The, etc.

THE AMERICAN MEDICAL COLLEGE.—What is it? It is a collection of doctors who want to make a little money. This definition, however, lacks completeness. Here is another: The American medical college is a series of lenses, having the faculty on the one side, immediately on the other side the students, and a little more remotely the rank and file of the profession. Viewed through these lenses the faculty appear abnormally large, the students and the rank and file abnormally small. A straight medical college is an arrangement having rigid preliminary examinations rigidly enforced, a long course of graded instruction, and a requirement which makes every student attend that course from first to last, or pass an examination for advanced standing which, in point of severity, shall be unexceptionable. Its aim is to graduate relatively small classes. The conventional American medical college is of little value, except to its faculty.

IDEAS.—In a recent book review, which may be seen in the April number of the American Practitioner, these words occur: "Some men are afflicted with ideas, crude, incomplete, famished ideas, which they persuade themselves are the perfection of knowledge for which the world must suffer sadly until they are promulgated, and they write them and have them printed." It is the bane of medical literature that so many of the ideas which it contains are crude, incomplete, famished. The books are many which abound in ideas of this sort, and many are the authors who would do well not to publish until their crude, incomplete and famished ideas have been cultivated, completed and nourished, and failing in this would do better not to publish at all. The medical literature of the day, both books and journals, is crammed with crude conceptions and cruder misconceptions. It even contains much that would not rise to the dignity of a misconception. The profession is tired of trash, tired of smoke, and demands that the facts of medicine shall first be verified, then reduced to order, and then to print. The

fault lies underneath our miserable system of medical education. Yet it will be generally admitted that American medical students are a class of earnest men. The blame rests not with them so much as it rests with certain gentlemen who control medical colleges, and who advertise them as stepping-stones direct from boorishness and ignorance to a learned profession. Young men should get the hay seeds out of their hair, and their trousers out of their boots, before matriculation. Preliminary examinations, somehow, have a very striking relation to this subject. Let the young man beware of entrance to a preliminary examination for matriculation in a medical college, but, being in, let him be made to bear it, that the armies of effervescing authors and their followers may beware of him.

AN ADVERTISING SPECIALIST, one Dr. "Lucas," whose case had been under consideration by the State Board of Health, appeared in his own defense in the columns of the Chicago Times on the 13th of this present month. In his communication he states that he is a member in good standing of the Illinois State Medical Society, and publishes the text of two diplomas, one dated 1874, in Latin, with a macaronic assortment of signatures, from the Bennett (Eclectic) Medical College, of this city, and the other in English, dated the year following, from Rush Medical College. These diplomas are granted to one Lucas R. Williams, while the doctor's practicing name is, we believe, Dr. William R. Lucas, or simply Dr. Lucas. On examining the last volume of Proceedings of the State Medical Society, we find, in the list of members, L. R. Williams, whose post-office address is Chicago. This name does not appear in the Chicago Medical Register for 1879-80, nor in the Illinois State Register for 1877-78, as far as we observe, except on the list of members of the State Society. We would respectfully call the attention of the censors of the State Medical Society to this graduate's article in the Times, and advise them to correct their list, if practicable.

PILOCARPINE VS. ATROPINE.—Dr. Pujesz, of Budapest, Hungary, had lately a patient who took for a medical purpose a solution containing nearly two and one-half grains of sulphate of atropia. When seen by the doctor, an hour later, the effects of the poison were marked. He at once injected hypodermically every five or ten minutes one centigramme of muriate of pilocarpine, giving altogether in this way about sixteen centigrammes. Under this treatment the toxic symptoms gradually disappeared, and at the end of three hours the patient had quite recovered. Even the dilatation of the pupils, which had been extreme, was completely relieved.

DEATH FROM THE BROMIDE OF ETHYL.—Dr. J. Marion Sims, in the *Medical Record*, April 3, 1880, is the first to raise a warning voice against the bromide of ethyl. The case reported was that of a woman twenty-five years of age upon whom the operation of normal ovariectomy was performed. The bromide of ethyl was administered. The operation lasted one hour and a half. The patient died within twenty-four hours, having had nausea, vomiting, retching, a profuse diarrhœa, severe headache and suppression of urine. The post-mortem appearances bearing upon the case were: intense congestion of about eighteen inches of the lower part of the ilium and of the colon. The kidneys seemed to be healthy to the naked eye, but under the microscope showed slight increase of the interstitial connective tissue and the characteristic evidences of acute catarrhal nephritis. All the tissues of the body emitted the fumes of the bromide of ethyl, and seemed saturated with it. An analysis of the case leads to the following suggestions.

A certain amount of bromide of ethyl entered the circulation. Its elimination, as in the case of ether and chloroform, was undertaken by the kidneys, the bowels and the lungs. Dr. Emmet first called attention to the fact that unsuspected disease of the kidney may render that organ incapable of the elimination of ether; that the diseased kidney in the attempt to eliminate sometimes becomes violently congested and inflamed; and that in consequence of this, suppression of urine ensues and death from uræmia follows. We have seen such a case at the Woman's Hospital in the state of New York and have known of three others in which the autopsy showed this to be the cause of death. In the two hundred cases in which the bromide of ethyl has been used by Dr. Levis and others the longest operation lasted but forty minutes. In Dr. Sims' case the operation lasted ninety minutes. The amount of ethyl, therefore, to be eliminated was presumably more than twice as large as in any previous case. The uræmia, peculiar diarrhœa, and the saturation of all the tissues with the ethyl, may be accepted as evidence that the organs of elimination were unequal to the task imposed upon them, and that death may have resulted from the continued presence of a large amount of the ethyl which could not be eliminated. If this be the true solution of the question, it follows that this anesthetic is dangerous in long operations. The question remains: Is it safe in short operations? a question which cannot be answered at present. The autopsy in this case points strongly to the ethyl as responsible for the death. Clearly we cannot be certain that the same result would not have followed the use of ether or chloroform. The profession is indebted to Dr. Sims for the report of this unfortunate

case. The favorable impression which the profession had formed of the new anesthetic will properly be modified, and the agent will be employed with less hardihood.

OUR EXPERIENCE WITH ETHYL BROMIDE is confined to a single case, which we report because the subject is important, and because the facts hitherto recorded are meager. The anesthetic was administered to a nervous, anæmic woman. The operation was forcible dilatation of the sphincter ani muscle for the relief of fissure. Twenty minutes were consumed in producing ethylization, the patient meantime manifesting all the symptoms of nausea, vomiting and retching common to disagreeable etherization. The patient finally became unconscious, the respiration became rapid, and the circulation was slightly accelerated. The operation occupied about one minute. Consciousness returned in about twenty minutes. During the thirty-six hours following nausea and vomiting were very marked. An offensive diarrhœa, similar to that described by Dr. Sims, appeared on the second day and continued two days. The patient's habit had been constipated. This case is not reported as a typical one, but rather as an occasional exhibition of ethylization.

ATTACHMENT OF THE PREPUCE TO THE GLANS PENIS.—Dr. Simmons, of Yokohama, Japan, adds another to the many cases in which detachment of a glandulo-preputial adhesion was followed by relief from symptoms referable to the nervous system. This was the case of a boy of twelve years, who, about a year previous to the operation, had experienced disturbed sleep and slight convulsive movements, which increased in severity and in two or three months assumed the form of decided epileptiform seizures, which finally occurred once or twice every night and varied in duration from ten to fifteen minutes. These seizures were followed by unconsciousness of about an hour's duration. They occurred only at night. Detachment of the prepuce from the glans was followed by complete cure. Dr. E. C. Dudley, of Chicago, has recently reported a similar operation in a case where the adhesion involved the entire glans from the corona to the meatus. The patient was a delicate boy, four years of age, who had suffered day and night from incontinence of urine for more than two years. His locomotion had been impaired in such a manner as to cause suspicion of partial paralysis of the tibialis anticus muscle on one side. The operation was followed by perfect cure, both in respect of the incontinence and of the supposed paralysis. It is believed that few operations in all surgery are more satisfactory in their results than this.

ACONITIA IN NEURALGIA.—The Practitioner, March, 1880, contains an abstract from *Le Progrès Médical*, December 6, 1879, of which the following is a résumé: Aconitia is perfectly successful in those forms of facial neuralgia not associated with other lesions, not intermittent, and not recurrent, i.e. simple congestive neuralgia, commonly caused by exposure to cold. Aconitia, in such cases, cures in two or three days. The results are especially marked in recent cases, although cases are on record in which the affection had lasted for one month, two months, and five years, but which were cured—the first in seven days, the second in three, and the last in three weeks. The drug has also a good effect in secondary neuralgia, dependent upon such cases as dental caries, otitis paraplegia, etc. Acute rheumatic arthritis yields in eight or ten days to doses of a half milligram, gradually increased to one and a half milligrams per diem. The effects of the drug on neuralgia of the fifth pair of nerves are particularly striking. It must be employed in very small doses and at long intervals. Neuralgia of the intermittent type indicates the addition of quinine. The energetic action of the aconitia requires the susceptibility of the patient to be tested by a commencing dose of one fifth of a milligram of aconitia crystals combined with five centigrams of quinine, in pill form, three times a day. This dose may be cautiously increased by one pill each day, until the maximum dose of six pills in twenty-four hours has been given. This should usually be the limit. Slight diarrhoea calls for reduction of the dose. Physiological experiments and clinical observations show that these pills have sedative influence upon the circulation through the vaso-motor nerves, and it is concluded, therefore, that they are indicated in congestive neuralgia and in inflammatory rheumatic affections. Dr. Oulmont and M. Gubler are the authorities quoted.

THE CINCINNATI LANCET AND CLINIC is distressed and grieved over the fact that, regardless of sex, or previous condition of servitude, any individual may obtain in Cincinnati a medical diploma for twenty-five dollars. If any one chooses to be defrauded into paying twenty-five dollars for a Cincinnati diploma let him pay it. Why distress yourself, Oh, Lancet and Clinic? Such a transaction is of slight account. An unauthorized institution, having no share of the public confidence, has simply declared that a dishonest and ignorant party may practice medicine. If the public does not protect itself against such fraud, let the public learn wisdom by experience. It is not this sort of traffic which is most pernicious; it is the conferring of medical diplomas by authorized institutions upon unworthy candidates which is de-

structive. Those institutions which have the sanction of the state, and whose managers have the confidence and respect of the public, are sending out thousands of men every year with relatively no greater claim upon the public confidence than have the holders of bogus diplomas. Ponder upon this question, Lancet and Clinic! Ponder in Cincinnati! Ponder!

THE TRANSACTIONS OF THE WISCONSIN STATE MEDICAL SOCIETY for 1879 is a volume of 300 pages, and its contents is considerably above the average of this class of literature. The affairs of the State Society in Wisconsin have undergone considerable change, in virtue of the young blood which has lately been infused into it. The younger members of the society, in conjunction with a number of the more progressive and enterprising older members, now control its workings, a state of things which has not always characterized this organization. The papers published reflect credit upon the writers, upon the committee of publication and upon the state. The president's address was on medical legislation, and is a very acceptable contribution to the subject. Dr. J. G. Meachem, Jr., of Racine, reports a very interesting case of osteo-cephaloma of the thigh. Dr. J. G. Meachem, Sr., makes a very full report of new surgical instruments. A most painstaking and complete paper is the report on obstetrics and gynecology, by Dr. J. K. Bartlett, of Milwaukee. Dr. Bartlett has good reason to be satisfied with this effort. Lack of space rather than want of merit prevents mention of the remaining contributions, which, as we have before said, are more than usually meritorious.

VACCINATION IN ENGLAND.—From the Medical Record we learn that the parliamentary committee who have investigated the subject of compulsory and animal vaccination have expressed the following satisfactory conclusions: I. That the present system of compulsory vaccination is efficient and necessary, and should be continued. II. That there is a remote possibility of inoculating syphilis with humanized lymph, but that nevertheless the old system of arm to arm vaccination is a good one, and should be continued. III. That vaccination with calf lymph gives also an efficient protection against small-pox, and that humanized lymph ought to be rejuvenated at regular intervals by the use of calf lymph. IV. That the public vaccinators ought to have a supply of calf lymph for the above purpose, and also for use upon those persons who object to the humanized lymph. V. That experiments should be taken to test the absolute and comparative value of calf lymph against small-pox.

THE AMERICAN PRACTITIONER, which has few if any superiors in American medical journalism, is publishing a series of lectures on the elements of surgery, with a special view to the practice of anti-septic surgery, by John Chiene, M.D., F.R.C.S. Edin. These lectures have unusual merit. We should be glad if they could be published in book or pamphlet form for general distribution throughout the profession. Mr. Chiene writes in accordance with the following sentiment of Ruskin, which the accomplished editors of the Practitioner have wisely placed at the head of its excellent pages. "Certainly, it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else."

CELLULITIS AS A CAUSE OF UTERINE DISEASE.—The object of this article is to show that uterine catarrh, if not in a majority, then in a large number of cases, depends, not upon any of those conditions which have been called by such names as metritis and endometritis, but rather upon obstruction to the circulation in the broad ligaments, due to cellulitis. The uterus receives its vascular and nerve supply through the broad ligaments, and the exceptionally large supply of vessels and nerves going to and from the cellular tissues of the pelvis, and transmitted through these ligaments to and from the uterus, renders them peculiarly liable from cold and from many other causes to a vaso-motor neurosis, which may commence in a disordered capillary circulation, go on to perverted nutrition, and finally result in that condition vaguely called inflammation. It is, therefore, reasonable to presume, *à priori*, that these cellular tissues, particularly the broad ligaments, are very liable to be the original seat of inflammation. The history of uterine catarrh in the virgin generally includes the history of a previous cellulitis. The patient will frequently remember that her uterine trouble followed a sickness which was characterized by exposure to cold often during the period, by chill, by severe pain in the pelvis, commonly unilateral, by high temperature, by rapid pulse, nausea, and flexure of the thighs,—in a word, cellulitis, the remains of which will generally be evidenced by tenderness upon pressure per vaginam, by shortening and by thickening of the broad ligament.

The subsequent history of such an inflammation in the broad ligament would be obstruction of the circulation to and from the uterus, and by as much as the veins are more compressible than the arteries, and

less aided in the transmission of blood by the vis a tergo, this obstruction will be rather venous than arterial. The uterus, therefore, would become the subject of venous congestion, and thus gorged with blood it would seek to relieve itself through the channels offering least resistance, and the natural secretion of the mucous follicles would, therefore, soon change to an abundant leucorrhœal discharge. The epithelial membrane of the cervix, itself congested and irritable, and continually bathed in this discharge, would gradually suffer erosion or even partial destruction. The uterus, heavy from congestion and enlargement, may then fall to a lower plane in the pelvis, and the broad ligaments may be put upon the stretch, causing additional obstruction, since the vessels which we have said traverse these ligaments are so freely looped one upon the other that even slight traction causes the compressible veins to collapse.

We now have, in virtue of venous obstruction, a pelvis overcharged with stagnant venous blood. This would furnish a rational explanation of much that goes to make up the picture of uterine disease, especially among virgins, as commonly met in practice; congestion, displacement, hypertrophy. All that belongs to the phenomena attendant upon the so-called endometritis and endocervicitis is manifest in the uterine discharge. Even a form of that time-honored nonentity, ulceration, is explained by the erosion. These various conditions appear as facts only, not as diagnoses. The diagnosis may be found in the inflamed cellular tissue of the pelvis.

A CERTAIN CONTRAINDICATION TO TOPICAL APPLICATIONS TO THE UTERUS.—We have seen in the foregoing editorial that intrauterine catarrh and erosion of the cervix may depend upon cellulitis in the broad ligament. Indeed, if we except parturition, mechanical injuries and gonorrhœa as causes, the catarrh may be generally traced to pelvic cellulitis. Dr. Emmet declares that he has generally found disease of the uterus and ovaries associated with cellulitis, and that in cases which he has been able to observe early, he has noted the prior existence of the cellulitis, except in those cases already mentioned, in which the inflammation occurred primarily from parturition, mechanical injury or specific disease. Where cellulitis has once existed in the tissues adjacent to the uterus, it is extremely liable to be rekindled by the use of the sound, by too early replacement, or by any of the manipulations common to the treatment of uterine disease. Great care, therefore, should be taken to avoid the causation of more cellulitis; otherwise we may add to the trouble in our attempts to relieve it.

If the endometrial membrane be innocently striving to relieve the uterus of its engorgement of blood by a secretion, shall we treat it with destructive applications or direct our attention to the cause of this obstruction in the broad ligaments? Topical applications to the cervix and to the interior of the uterus are often made to the detriment rather than to the benefit of the patient. The experience of the past twenty-five years shows that these applications have their place, and that they may be used to advantage in a very large number of cases, but the tendency of the present day is properly to their exclusion in all of those cases dependent upon or associated with cellulitis until the latter has been practically removed; and always the application should be mild. In the management of uterine disease dependent upon cellulitis great reliance may be placed upon time. In addition to this the hot-water vaginal douche is the most satisfactory agent. But, in order to obtain beneficial results, it must be properly and systematically applied. Other treatment must depend upon general principles; hygiene, food and tonics are important. But it is of the utmost importance to guard the patient against a relapse of the cellulitis. Indiscriminate uterus swabbing has no place in the management of such cases.

HISTORICAL SKETCH OF THE OPERATION FOR TOTAL EXTIRPATION OF THE UTERUS.—The first extirpation of the carcinomatous uterus was made by Andreas a Cruce, in 1650. In 1812 Gutberlet operated through the abdominal walls. Langenbeck and Delpech operated by this method, the latter successfully. Langenbeck and Sauter in 1822 operated through the vagina. Sauter's operation was successful. In 1828 Blundell operated successfully per vaginam. Recamier, in 1829, modified the operation per vaginam by ligature en masse of the lower part of the broad ligament by means of a curved needle. Delpech, in 1830, proposed a combination of the vaginal and abdominal extirpation. In 1876 Hennig operated successfully without ligating the broad ligaments. Freund's operation, 1877, described in our issue March 20, 1880, differs from all previous operations. He was the first to close the wound from the vagina into the abdominal cavity by sutures.

FREUND'S OPERATION AS MODIFIED BY HIMSELF AND BY OTHERS.—In September, 1878, Freund proposed the following modifications of his operation: I. To avoid accidental detachment of the peritoneum from the anterior wall of the pelvis during the operation, the incision through the peritoneum is to be shorter than that through the skin, so that the peritoneum at the inferior extremity of the wound may

be stitched to the skin. II. Instead of passing a looped wire through the body of the uterus, for the purpose of steadying it, he uses the fenestrated ovariectomy forceps. III. By means of a trocar needle a ligature is passed from the peritoneal cavity to the vagina on one side of each broad ligament and then from the vagina to the peritoneal cavity on the other side. This ligature is made to enter and to leave the vagina at points very near together in the utero-vaginal attachment, so as to include as little vaginal tissue as possible. This ligature does not include the fallopian tubes, the ovarian ligament or the round ligament. It is tied and the ends are cut off. IV. To distinguish between the ligatures of the fallopian tubes, of the ovarian ligaments, and of the round ligaments, he attaches to the end of the superior a slender piece of metal, to the next below a shorter piece, to the other none at all. This also facilitates the passage of the ligatures through the vaginal wound. V. He passes loops through the peritoneal flaps to facilitate the dissection of the uterus therefrom. VI. When the dissection along the anterior wall of the uterus is nearly complete, he makes a small incision from the vagina through the utero-vaginal attachment, and dilates this incision until it will admit one or two fingers of the left hand. Then passing these fingers through this opening he inserts them into the uterine canal to facilitate the handling of the organ during the remaining part of its extirpation.

Schroeder cuts off all the ligatures and leaves them to be absorbed.

Martin makes a crescent-shaped incision from one anterior superior spinous process to the other.

Kocks includes the fallopian tubes and ovarian ligaments in one ligature.

Oelschläger, having in one case cut and ligated the ureters, urges great caution against such an accident. Freund, however, declares that in strict adherence to his method the ureters are not endangered.

Credé, in order to gain room, resects the upper part of the pubis, removing all but a strip one centimeter in width on the lower border. His resection extends to the inner angle of the obturator foramina on each side. He leaves the periosteum. He then waits one or two weeks and then removes the uterus. The peculiarities of his operation are: I. Partial resection of the anterior wall of the pelvis; II. Isolated ligature of the vessels; III. Union of the vaginal as well as the peritoneal side of the wound. This is done with interrupted sutures, which are brought out and secured in the vagina. Credé has operated by this method only once, but performed both the resection of the pubis and the extirpation at the same time. The result was fatal.

OPINIONS RESPECTING TOTAL EXTIRPATION OF THE UTERUS.—Credé: That if the cancer involves vaginal tissues, the operation is contraindicated on account of increased liability to return. He is also opposed to the operation for carcinoma, believing the average duration of life to be longer without it. In the latter opinion he is probably wrong. Bruntzler says that acute, fatty degeneration of the muscles of the heart is a very common cause of death. Binswanger, a pathologist, found in three fatal cases that the muscles of the entire heart were flabby, were deprived of their natural translucence, and were of a yellowish-gray color. The microscope showed varying degrees of fatty degeneration of the sarcolemmal elements. The fibers, in part, presented a finely granular appearance. Fat drops were observed in the sarcolemmal sacs. Abdominal operations, causing prolonged irritation of the peritoneum, usually embarrass the action of the heart and lungs. Lesion of these organs, therefore, may contra-indicate laparotomy. If carcinoma uteri be associated with enlarged inguinal glands, it would be desirable before operating to subject one of the glands to microscopic examination. Should the enlargement be due to carcinomatous infiltration, total extirpation is contra-indicated. Sometimes the vaginal portion of the uterus is carcinomatous and the body is only infiltrated. Before removal of the cervix, the canal may be dilated, and a portion of the body removed by the curette, and if infiltrated, total extirpation instead of amputation of the cervix is indicated. Binswanger says that in every autopsy after Freund's operation, union by first intention of the peritoneal wound has been perfect. Fränkel warmly advocates Freund's operation, and proposes the following indications: Carcinoma of the vaginal portion, any malignant growth of the body, including carcinoma, sarcoma, scirrhus and interstitial fibro-myoma. He considers total extirpation in such cases preferable to supra-vaginal amputation.

STATISTICS OF TOTAL EXTIRPATION OF THE UTERUS.—Freund: 14 operations, 8 deaths, 5 recoveries, 1 incomplete operation. Of the five recoveries one died from a return of the cancer, one from pleuritis, and a third is now suffering from a return of the cancer. Of the remaining 25 operations of which the results are known, which have been recorded by various operators, 19 died, 5 recovered, and in one case the operation was incomplete. Of these five successful cases, in three the cancer returned.

The facts contained in the foregoing articles have been taken from an article in Schmidt's *Jahrbücher*, B. 183, No. 9, 1879, by Dr. P. Osterloh, Dresden.

The operation of total extirpation of the uterus

must be regarded as of doubtful value. Its recognition as a justifiable procedure will depend, first, upon the adoption of some method by which the mortality of the operation shall be materially decreased; second, upon such efficient means of diagnosis and prognosis as may enable the surgeon to select the promising and discard the unpromising cases.

AUDITORY NERVE.—M. Mathias Duval, in a recent communication to the Société de Biologie, Paris, reported the results of examinations made by him on the origin of the auditory nerve. Several years since Prof. Cyon, of St. Petersburg, announced that this nerve served two functions, or rather consisted of two functionally distinct nerves, one supplying the sense of hearing, and the other connected with the semi-circular canals which have long been known to have to do somewhat with the maintenance of equilibrium, supplying a new sense,—the sense of space. It is also well known that the cerebellum appears to have some function connected with the equilibration of the body, vertigo being the most constant symptom of its lesions, as it also is of certain disorders of the auditory apparatus, such as Menière's disease or aural vertigo. Now, according to M. Duval's recent researches, the auditory nerve, the portio mollis of the seventh pair, arises from two distinct roots, one of these the posterior, originating in the nucleus described by the majority of authors, as that for the nerve of hearing; and the other, the anterior, arising from a motor nucleus, some of the fibers, however, being traced back to the cerebellum. Putting all these facts together, M. Duval considers that the anterior root serves the sense of space, of which the semicircular canals are the peripheral organs.

OSTEOMYELITIS OF THE LONG BONES.—Dr. Nicholas Senn, President of the Wisconsin State Medical Society, in the *Chicago Medical Journal and Examiner* concludes an exhaustive paper on this subject as follows:

I. Spontaneous osteomyelitis is an infectious disease.

II. It is most prevalent in damp, changeable climates, and during the winter and spring months.

III. It affects with preference individuals during the period of growth and development of bone.

IV. Traumatism, and other agencies which produce a retardation or arrest of circulation in the vessels of the marrow, act only as determining causes.

V. The primary seat is usually in the marrow of the cancellated tissue, in close proximity to the epiphysary cartilage.

VI. Joint affections are frequent and prominent complications of this disease.

VII. Thrombosis and inflammation of the veins of the marrow, bone, periosteum, and soft parts are of frequent occurrence, and are the direct cause of pyæmia.

VIII. Swelling is absent for the first few days, and when it does occur it becomes rapidly diffuse, and is attended by œdema and enlargement of the superficial veins.

IX. Fluctuation is diffuse as soon as its existence can be ascertained.

X. A constant high temperature and typhoid symptoms indicate the gravest type of the disease.

XI. Death may result from the intensity of the primary affection, but is usually produced by some complication.

XII. Early removal of the products of inflammation, under strictest antiseptic precautions and local disinfection of the tissues, are of paramount importance for its successful treatment.

XIII. Epiphyseolysis may become completely repaired.

XIV. Excision of shaft may become necessary during the acute stage to prevent exhaustion from profuse suppuration. This rule is not applicable if the humerus or femur is affected, on account of the impossibility of keeping the limb in position until regeneration of the bone has taken place.

XV. In most cases fixation of the limb is necessary, for the purpose of procuring rest and to prevent deformity.

THE NIGHT MEDICAL SERVICE, now in operation in most of the large cities of Europe, might be, with certain modifications, advantageously introduced into this city. The method of conducting this service is as follows: At each police station a register is kept of all physicians within that precinct who are willing to attend to calls at any hour. These must be reputable physicians. When the services of a physician are required the applicant goes to the nearest police station, where he registers his own and the patient's name and address. A policeman then calls the nearest physician, if no preference is expressed, accompanies him to the patient's house, and gives him a printed form on which is his own name and address, the name and address of the patient, and by whom called. This is retained by the physician. If the patient cannot pay, this form is a voucher, by virtue of which the physician receives his fee from the municipality. If the patient pays, the voucher is given him by the physician as a receipt. Dr. Nachtel has been advocating the adoption of this service in this country, and thinks that the annual cost in New York would not exceed \$10,000. Berlin, in 1872, was the first to put this idea into practice. Her example was followed by St.

Petersburg in 1874 and Paris in 1876. In Paris over 600 physicians and surgeons are now on the registers. The expense of such a service in this city would probably not exceed \$7,000 per year. It is clear that the medical profession should not be called upon to give gratuitous attendance to paupers, any more than the tradesman should be required to furnish them with merchandise. The city pays in the one case and should do so in the other. Adequate provision, at present, is not made by the public for the pauper sick. The city and county physicians are unable to do the work. Some modification of Dr. Nachtel's plan might be of service. It should have for its object the more prompt and efficient care of the deserving sick poor than is possible under the present scanty provision of county and city physicians, and it should provide compensation for the doctors who do the work. Such a system, also, if properly ordered, would be especially useful in epidemics and emergencies, because any person in search of a medical man would be sure of obtaining one of recognized standing by application through the telephone, or otherwise, at a police station.

A CEREBRAL ANOMALY.—In eleven autopsies at the Central Prison Hospital in Paris, M. Hanot met with four cases in which there were four transverse frontal convolutions in each hemisphere of the brain, caused by duplication of the normal second frontal. The criminals whose brains showed this anomaly were not capital offenders, but the fact is notable, since Benedikt observed this same duplication in certain felons. On the other hand M. Ovion, who had been performing similar autopsies on non-criminals in the Hospital Cochin, had not met with a single similar case.

CONGRESS OF UNIVERSAL HYGIENE AND MEDICINE.—We learn from the British Medical Journal that the Belgian Royal Society of Public Medicine is organizing a general congress of public hygiene and medicine, to be held in Brussels next August. Of the seven questions to be discussed the most important ones are on the adulterations of food, contagious diseases, the causes of insalubrity, and the hygiene of primary schools.

IMPROVED DOVER'S POWDER.—Dr. Chisholm, in the Ohio Medical Recorder, advocates the substitution of the bromide of potassium for the sulphate, and declares that the efficiency of the powder is greatly increased by the substitution.

DR. H. H. TOLAND, professor of surgery in the University of California, and author of Toland's Surgery, died on the 27th of February.

THERE is at present prevailing in Chicago and vicinity an endemic of pneumonia. The disease commonly assumes the lobar form, and it is attended with the usual manifestations of sthenic action. It appears to be of average severity and mortality. Other inflammatory affections of the thoracic viscera do not seem to be exceptionally rife. Eruptive diseases are occasionally met with, especially measles and scarlatina. The daily papers contain sensational articles on small-pox, owing to the appearance of the disease in the west division of the city.

SYPHILITIC MUSCULAR CONTRACTION.—Dr. Arthur Van Harlingen reports three cases in the April, 1880, number of the American Journal of Medical Sciences. Our scanty knowledge of this subject gives to this communication a certain value. Notta, Buisson, Fournier, Mauriac and Virchow have given us much of our present knowledge on this subject. The previous notion that muscular syphilis is of tertiary origin is incomplete, since it may occur at any period of syphilis. The later manifestations of muscular syphilis usually fall under the category of the gum-mata; the earlier, according to Fournier, may involve the muscles in pain, in contraction, in debility, in atrophy, in tremor. The cases here reported, illustrate muscular contraction. The first case was under steady treatment and recovered in eight months; the second required ten months of constant and careful treatment; the third, treated at irregular intervals and for short periods, sustained several relapses, and ten months after the affection first appeared had not improved. Syphilitic muscular contraction may attack any muscle, but more usually attacks the biceps brachialis, and next to this, the triceps brachialis. The contraction is constant, and if in the biceps the forearm is flexed at a variable angle, from ninety to one hundred and seventy degrees. Extension beyond a certain point is impossible without severe pain referred to the radial insertion. When both biceps and triceps are affected, muscular ankylosis results, preventing both flexion and extension. The muscle is not generally very painful upon pressure. Occasionally exaggerated sensibility is elicited by pressure upon the body of the muscle. More frequently pressure upon the tendon develops tenderness. General muscular pains, with stiffness, soreness and occasional cramps in certain muscles are common. In the cases reported, stiff neck, coming on towards night, was noted. The contraction develops insidiously. Untreated it may continue with remissions and relapses for more than a year. The special pathology of the lesion is not clear. It doubtless has important neurological relations. The treatment is that of advanced syphilis, generally the mixed treat-

ment is indicated. Local applications are of doubtful value. The tendency is to spontaneous gradual recovery. The prognosis is therefore favorable. The course of the disorder may be abbreviated and relapses prevented by systematic treatment. The differential diagnosis between this and hysterical muscular contraction, depends upon the presence or absence of certain concomitant symptoms, which the nature of the two affections would clearly indicate.

THE GALVANIC TREATMENT OF INCIPIENT CATARACT is discussed by Dr. Neftel, in Virchow's Archives, Vol. 79, H. 3, page 465. This investigator has used a constant current for years in the diagnosis and treatment of ocular affections. He refers incidentally to a number of very serious diseases like retinitis pigmentosa, retinal detachment, etc., which were stopped or even improved by galvanic treatment. The point, however, to which we wish to call attention, is his claim to have removed the beginning of senile opacity of the lens by these means. One pole of a feeble ascending current, five Siemen's cells, was applied to the neck, the other to the closed eyes. After a time the direction of the current was changed. This was repeated with an increasing number of cells from ten to fifteen minutes. The first patient, an old lady, had been seen by Drs. Agnew and Webster, who diagnosed bilateral cataract and advised an operation as soon as the cataract should be mature. After each galvanic application the sight improved. After twenty-five applications Dr. Agnew examined the patient again, without being able to find any opacity of the lens or any other anomaly of the eye.

A second patient was seen by Dr. Knapp who confirmed the diagnosis of cataract. Electricity was applied thirty successive times, at the end of which period her sight was again normal. These communications would be of immense importance were they but fully trustworthy. In stating the diagnosis, Dr. Neftel always quotes well known oculists as responsible for it, but omits any accurate description of the exact state. It is not apparent from his own words that he ever used the ophthalmoscope himself. It is true he claims a decided improvement of vision in both instances, but the exact state of vision is not given with the accuracy which any oculist would demand. He mentions that the patient could not count fingers, that in the other case the patient could see fine print, but his description signifies but little. The distance of the object from the eye is not given. Dr. Neftel also claims to have removed the existing presbyopia, by the galvanic treatment, since his patients were subsequently able to read and sew without glasses, but the same vagueness of description also renders this account untrustworthy.

He partly explains his results by the changes which the intra-ocular pressure undergoes. The application of the negative pole raises it, while the anode causes it to sink. These changes, if they really do occur, might also be of advantage in various other eye diseases. At any rate, his method, which his large experience seems to have shown as perfectly harmless, deserves further trial.

THE experiment of conducting a brief course of instruction for the benefit of practitioners, beginning at the close of the regular winter session and continuing one month, has met with success in the Chicago Medical College. It affords practitioners an excellent opportunity to keep abreast of the times and to rejuvenate. There are forty-one physicians in attendance, and about an equal number of students and recent graduates of the college.

A CERTAIN REMEDY FOR DIPHTHERIA.—The Boston Medical and Surgical Journal, April 8, 1880, states that Henri Bergeron reports that hydrofluoric acid evaporated in the proportion of one gram to each cubic meter of the sick-room, and thus inhaled by the patient, is a certain remedy for diphtheria. Three hours should be consumed in the evaporation. He says that all who submitted to this operation for forty-eight hours recovered.

NITRO-GLYCERINE.—Dr. Murrell, in the British Medical Journal, states that nitro-glycerine is a powerful diuretic. The amount used on one occasion was twenty minims of a one per cent solution. This would be a large dose. No inconvenience followed its administration.

DR. D. A. K. STEELE has been elected attending gynecologist to the Cook County Hospital, vice Dr. Hessert, resigned. Dr. Norman Bridge has been elected attending physician to the same institution, vice Dr. J. P. Ross, resigned.

ATROPINE IN THE TREATMENT OF SPERMATORRHOEA.—Dr. Stephanides, of Carlsbad, has obtained prompt and excellent results from the use of atropine in profuse spermatorrhœa. He employs it in place of the bromide of potassium, in doses of about one one-hundredth of a grain, to be taken every evening.

A BILL to regulate the practice of medicine in Massachusetts is before the legislature, with the prospect that it will become a law. Its provisions are similar to those of the corresponding law in Illinois.

DR. WALTER R. GILLETTE reports a successful case of laparo-elytrotomy in the American Journal of Obstetrics, January, 1880.

ORIGINAL CONTRIBUTIONS.

DIABETES AND SEPSIS.*

BY W. ROSER.

When an individual, apparently in good health, suffers from a progressive gangrenous or ulcerating lesion, for instance on the extremities, when there seems to be no infecting cause, and when all irrigations with carbolic acid prove useless, it is high time to look for diabetes. This disease causes, very often, these obscure septic processes, and these require rather regulation of diet, with omission of all hydrocarbons, than disinfection with carbolic acid. Correct diagnosis is in such cases a matter of the greatest importance, since many patients might be saved if put on the right diet at a sufficiently early period.

Up to the present time three prejudices have often frustrated the diagnosis: I. It was considered incredible that an individual apparently in good health could have diabetes. By some it was supposed that this disease always produced great thirst and emaciation, and generally cachexia. II. It is now the fashion to believe that all gangrenous ulcers are caused by bacteria, and to remove these by carbolic acid without searching for any constitutional cause. III. Even if the diabetes is discovered it is still questioned whether it is the cause of the gangrène, and whether an advanced diabetes can be cured to such an extent that the septic process will cease.

These prejudices are combated by such cases as the following: Mr. C. R., aged 42 years, consulted me in June, 1878, on account of progressive gangrenous phlegmasia of the foot. The gangrene involved four toes, spread along the outer edge of the foot to the instep and along the sole to the scaphoid bone. The plantar fascia and superficial tendons were mostly necrotic. The inflammatory infiltration of the ulcer, the red areola, and the swelling of the whole foot, indicated the continuous progress of an infectious phlegmasia. Experience taught me to look for diabetes. This was found present. I then advised animal diet. Although this was not carried out quite to the letter, a quick and noticeable improvement occurred, the gangrene ceased, granulations appeared, and the necrotic portions exfoliated.

The patient entered my clinic July 4, 1878, and Prof. Külz, our colleague, so familiar with diabetes, had the kindness to watch the diet and the excretion of sugar. He succeeded in reducing the percentage of sugar, which was at first seven per cent, to a mere trifle. After the lapse of ten weeks it was quite plain that a resection of the metatarsal bone of the great toe and of the head of the second metatarsal bone would be necessary, while the rest of the foot could be saved. This was done, and the wounds healed by first intention, so that the patient was able to leave the clinic November 16. He was ordered to continue the animal diet and has since been well. I might

* Translated and condensed from *Deutsche medicinische Wochenschrift*, No. 1, 1880.

also report two other cases quite similar to this. I have also seen a number of patients, shortly before death, caused by gangrenous or phlegmonous processes, who might probably have been saved had the diagnosis been made in time.

But instead of relating these, I prefer to mention again the celebrated case reported by Nélaton some twenty years ago, which caused at that time no slight sensation. A gentleman, once filling a high position under the government, sixty years of age, of short stature and plethoric, received a small wound on the anterior side of the leg. Instead of healing this changed to an ulcer. This occurred in the year 1859, while the patient was living in a small village in the environs of Paris. He did not think much of the slight trouble at first, but later consulted Dr. Raphael. In spite of good treatment the ulceration increased. The continuance of treatment in Paris also proved useless. Finally Nélaton was consulted. He advised lemon juice and aromatic wine, chloride of lime and various caustics locally. In spite of all these efforts the ulcer continued to increase in the following manner: A livid seam at the edge of the ulcer changed in color to a grayish brown, lost its vitality and became exfoliated, thus increasing the size of the ulcer. Amputation was proposed, but Nélaton opposed it, being convinced that there must exist an internal cause which would continue to act after the operation. Nélaton suspected diabetes, and urinalysis confirmed this diagnosis. It was then learned that the patient had long suffered from thirst and had voided much urine. The anti-diabetic treatment was commenced, but it was too late. The gangrene involved the whole foot and the patient died.

The fact that diabetes is often accompanied by septic inflammation and gangrenous lesions was first mentioned by a French military physician, Prof. Marchal (de Calvi), in the year 1853. A work was written by Marchal in 1864 on these affections* in which he mentioned 133 cases of diabetes complicated with carbuncles and similar phlegmonous processes.

Marchal points out that these complications affect rather robust and well nourished persons of middle age than debilitated or senile subjects, very much reduced by the primary disease. He cautions especially that the diabetes be not overlooked, stating directly that the urine should always be examined in cases of repeated furuncles, diffuse phlegmasia and gangrene. A large number of French surgeons has sanctioned this advice of Marchal. A dissertation by Peyrot, a student of Verneuil (1878), treats especially of the curability of these gangrenous accidents, produced by diabetes, and gives a table of thirty-nine cases. The diabetes question has also been brought up repeatedly before the Société de Chirurgie, and in the latest bulletin, issued in September, there is a report by Polaillon on this topic. It seems strange that German surgeons have altogether neglected diabetic

gangrene, while the English text-books of Erichsen and Holmes are also silent on this topic.

The impression has been forced upon me that it is necessary to draw the attention of German surgeons to this neglected topic, since I have been consulted five times within the last two years in regard to amputation when diabetes was present but had not been suspected. But I must admit that I myself have committed the same mistake in some instances, although I saw in the year 1854 a case of phlegmasia of the thigh, in which my colleague, Professor Falck, pointed out to me the existing diabetes. In the year 1859 also I was informed by Griesinger that a compilation of two hundred and twenty-five cases of diabetes had shown twenty-two instances of gangrenous affections.

Some twenty years ago I performed amputation on account of supposed senile gangrene of the foot, in the case of a fat merchant fifty-eight years of age. Since there existed no heart disease, no indications of embolism, no advanced age, and no appearances of cachexia, I believe now that it was a case of unrecognized diabetes. The patient died in another city from progressive gangrene. I believe that many busy surgeons have committed similar faults. In one instance I extirpated a small, shrunken mammary cancer, whereupon there spread from the small wound a progressive phlegmasia which caused death. I did not see the patient again after the operation, but the case came into my mind on reading in a report by Dr. A. Henry* the following experience: "After an amputation of the breast, the upper flap became gangrenous on the second day. On the third day the lower flap also mortified. This process progressed, and the patient, a poorly nourished, prematurely old individual, died on the seventh day with symptoms of pulmonary oedema. It is difficult to decide whether the gangrene was caused by senile degeneration of the vessels or septic infection. Subsequently it was learned that the patient had always suffered much of thirst. This was probably a case of diabetes. The urine had not been examined."

Professor H. Fischer published a communication (*Deutsche medicinische Wochenschrift*, No. 14, 1876) in which he recommended the administration of thirty centigrams of carbolic acid daily, in order to combat the diabetes before operating. He also mentions a case which may be quoted in this place: The extirpation of a cancer of the male breast was followed by an extensive phlegmasia reaching down to the pelvis. On the ninth day the urine was examined, and was found to contain 2.2 per cent of sugar. Carbolic acid was at once given (with deprivation of amylacea?) and the sugar disappeared in a few days, the phlegmasia ceased and the patient was discharged.

Such cases force upon us the questions: Is it permitted to operate upon a diabetic patient? Is it indicated to postpone an operation upon a diabetic

* *Recherches sur les accidents diabétiques*. Paris, 1864.

* *Statistische Mittheilungen über den Brustkrebs*. Breslau, 1879, S. 108.

patient? And is it really of such importance that diabetes should be diagnosed before operating? The last question cannot but be answered affirmatively. It is true some operations, like those for cataract, do succeed often in cases of diabetes, but on reading in the French journals accounts of colon operations, rectal fistulæ, reduction of phymosis, and similar cases ending fatally in the cases of diabetic patients, caution seems to be indicated. Verneuil, who lost a patient from extirpation of a tumor of the parotid gland, disadvises operating. At any rate anti-diabetic diet should immediately be insisted upon, and the urine examined prior to the operation. Too much faith also should not be placed upon irrigations of carbolic acid, which cannot control the diabetic gangrene. This point really constitutes a gap in our views of infection which must be filled by future investigations.

Appendix. In this connection it may not be amiss to relate some aphorisms on diabetes. Marchal mentions that diabetes causes not only gangrenous and ulcerative processes, but also benign skin affections like erythema and eczema. One of my patients has often had blisters on the toes, and I have also seen a notice in the *Lancet* in regard to pemphigus of the feet among diabetic patients. Marchal's advice, to examine the urine in such cases, deserves to be remembered. Perhaps this also explains an observation by Passavant, according to whom some skin diseases heal only after the omission of vegetable diet, especially potatoes.

In the diagnosis of diabetes in surgical cases it must be remembered that fasting for a few days causes the sugar to disappear from the urine. If, hence, a case of gangrene is examined during the febrile state after perhaps an absolute diet of a few days, diabetes may be latent. No doubt such cases have healed without being recognized, while later on the patient died of some other gangrenous affection.

Diabetic gangrene of the lungs has received some attention in France. Marchal says, on page 428 of his book, that M. Rayer regards gangrenous pneumonia as a frequent termination of diabetes. The latest German authors, for instance Leyden and Hertz (the latter in Ziemssen), do not mention this form of pulmonary gangrene, although Griesinger had spoken about it in 1859. I once saw a case of gangrene of the lungs for which I could only account by suspecting diabetes, not then recognized.

The sudden deaths occurring now and then in diabetes may embarrass a surgeon. An old gentleman once consulted me for caries of the mastoid process. I intended to remove the carious bone, but the patient died suddenly on the night of his arrival. The post mortem revealed no cause of death, but I learned subsequently that diabetes had been present. Had any operation been performed, that would have been blamed for the death.

I once proposed an operation for phymosis, which the patient postponed through fear. Subsequently

I found diabetes, and then disadvised the operation. The patient died suddenly soon afterward without apparent cause. The phymosis operation is probably risky in case of diabetic patients, at least to the reputation of the surgeon. Verneuil once lost a diabetic patient by hemorrhage after removing a tumor of the parotid gland. A similar case from Verneuil's practice was related by Mannoury at the *Société de Chirurgie*, October 8, 1879. In this case Symes' amputation, performed within twenty-four hours after the injury, caused a parenchymatous hemorrhage which could not be controlled, and which caused the patient's death in forty-three hours. The urine contained 3.8 per cent of sugar.

I remember also the following incident, which occurred in the year 1847. A diabetic patient, who drank and urinated a great deal, and appeared cachectic, had taken a large quantity of mercury, which caused stomatitis, with the loss of the last molar tooth. I was called in to stop the bleeding from the gums, which had lasted four days and nights. The hemorrhage was controlled with a hot wire, but the man, who began to get dropsical, died after a few days.

A diabetic patient had a gangrenous phlegmasia extending from the foot to the thigh. On account of emphysema I made an incision in the thigh. This was followed by a large number of odorless air bubbles. Could they have been carbonic acid derived from the fermentation of saccharine serum in the areolar tissue?

ABSENCE OF SPERMATOZOA IN AN OTHERWISE HEALTHY MAN.

BY W. W. VINNEDGE, M.D., LA FAYETTE, IND.

[Read before the Tippecanoe County Medical Society, March 7, 1880.]

About the 1st of May last, Mr. A. B. called at my office on professional business. He stated that he and his wife had lived together happily five years without offspring; but now, having come into the possession of a good property, a change had taken place in their feelings and they wished for children. The object of his call at my place was therefore to ascertain, if possible, the cause of their unfruitfulness.

Soon after marriage they had, on account of poverty, tried to avoid having children. To prevent conception Mrs. B. had been in the habit of using, immediately after coitus, the syringe and cold water. He feared this had caused some disease in his wife which led to sterility. Again, he thought the unfruitfulness of their marriage might be due to disabilities on his part; and if I thought so, after hearing all his statements, he wished an investigation in order to establish the fact if possible. As a ground for the impression in regard to himself, he stated that he had, during two years immediately preceding his marriage, had illicit intercourse with a spinster, about twenty years old, at least as often as every fortnight, if

not oftener, without causing pregnancy. Five years ago this woman married another man and has since given birth to three healthy children. This, together with the fact that his wife is possessed of a full form and menstruates regularly, causes him to doubt his own powers.

A. B. is a native of this state, is a salesman, traveling a great deal; he is twenty-nine years of age, a little below medium height and weight, and is possessed of a full form. He has blue eyes and light hair, while his wife has very dark hair and eyes. He has always enjoyed good health, and assures me that he never suffered from venereal troubles or injury, or any disease of his sexual apparatus. His penis and testicles are of the average size and apparently healthy. He is not impotent, for he is possessed of strong sexual desires, and there is no trouble in the accomplishment of the sexual act on either his or his wife's part.

In order, therefore, not to subject his wife to much inconvenience, and an examination without cause, I advised that the investigation should begin with himself—that he should, through the use of the microscope, ascertain if he was free from disease. This he consented to do.

On the 23d of June, 1879, we went to Purdue University, West La Fayette, where a specimen of his semen was subjected to an examination under the microscope by H. W. Wiley, M.D., Professor of Chemistry, who at my request kindly furnishes the following statement for this report:

"Semen taken in a warm moist beaker glass, and a portion transferred to the slide and examined, with one-fifth objective. No living nor dead spermatozoa were to be seen. Some shreds were noticed, which might have been due to the partial disintegration of dead spermatozoa. H. W. WILEY."

June 23, 1879.

This examination convinced us that so long as his physical condition remained unchanged, his wife, who was ignorant of his proceedings, must continue sterile. It was thought best not to enlighten her as to the cause of the absence of offspring, and to subject him to treatment for a few months. He was advised to abstain from frequent sexual intercourse, to use in proper doses, at proper intervals, prescriptions of iron, quinia and strychnia, to obtain sleep as regularly as possible upon a hard bed, and to subject his sexual organs to frequent ablutions in cold water. I saw him from time to time during the summer and fall, and am satisfied that he followed the directions as closely as he possibly could. He enjoyed apparently perfect health.

On the 1st of December, 1879, a second microscopical examination was made by Dr. Wiley, in Purdue University. Here is his report:

"All the vessels employed were first brought to 100° Fahrenheit, two degrees above blood heat, to avoid any deleterious influence of a low temperature on any spermatozoa which might be present. Exam-

ined as in first case. Two full formed but dead spermatozoa were present, no living sperms were found. The semen is therefore now somewhat better than at the first examination. H. W. WILEY."

Purdue University, December 1, 1879.

The second examination discouraged my patient so much that he decided to rest his case, so far as medicines were concerned, for a time. At this date, April 5, 1880, he is industrious in business, and seems cheerful, but has almost given up the hope of ever becoming a father.

This case sustains, in a striking degree, the statements of Dr. Goodell (*American Journal Medical Sciences*, July, 1878, p. 49). He says: "A man may be castrated, or through disease be powerless to impregnate, but still possess the sexual feeling to a normal degree; he may possess the ability to inseminate, but not the ability to impregnate. Males who have lost the testes after the age of puberty retain the power of erection and even of ejaculation, but the fluid is of course merely a lubricating one. The amorous proclivities of the ox and steer are the scandal of our streets. Alive to these facts, oriental jealousy demands in a eunuch the complete ablation of the genital organs; not only are the testes removed, but also the scrotum and the penis. The seat of sexuality is in man, as in woman, not a member or an organ, but a sense dependent on the sexual apparatus not for its being, but merely for its fruition."

But this very interesting case contains other and more practical lessons, one of which I may briefly mention,—the importance of making a good diagnosis before beginning the use of heroic measures in the treatment of patients for sterility. I have reported this rather unsavory case to the society chiefly to urge that attention be given this point. The procedures necessary to establish a diagnosis in this case were delicate and repulsive to both patient and attendant; but it was impossible to locate the lesion positively except through the use of the microscope. A failure to study the patient's history of disease carefully and to use the microscope might entail much sacrifice of feeling as well as expense on the part of the patient, and lead to failure in treatment. In these days of conservative surgery, especially conservative uterine surgery, a physician cannot afford to sacrifice reputation by failing to make a good diagnosis in this class of cases and thereby avoid the application of heroic treatment. Much less can he afford to sacrifice health, if not life.

RADICAL CURE FOR HERNIA.

The Varieties which are most likely to be Cured by the Injection of the Hernial Rings with Irritating Fluids.

BY JOSEPH H. WARREN, M.D., BOSTON, MASS.

In accidental or congenital hernia in persons between the ages of four and twenty years, the most favorable results may be expected. Unless the her-

nia be large and of long standing, the injection need not be very stimulating. The youngest child I have operated upon was four years of age. This was a very delicate operation for a large umbilical hernia, which was not easily controlled by mechanical means, owing to its size and extensive protrusion. The operation resulted in a cure. I would not advise the operation for femoral or inguinal hernia unless the patient was at least five or six years of age, preferably ten or twelve. In the cases of these little patients, a properly fitting truss, which may itself effect cure, should usually be tried first, unless the child be very nervous or the parts so irritable as to render the truss or other support intolerable.

After the age of twenty-one, radical cure is more difficult. Satisfactory results are only to be obtained by the use of a more stimulating injection. More than one injection is often required. The older the patient and the larger the hernia, the greater the difficulties become, although enormously large herniæ, such as, to all appearance, would preclude reasonable hope of cure in accordance with our previous ideas, may now be relieved or cured. Almost certainly, if we do not succeed in fully closing the hernial rings, we may cause a certain amount of contraction and a corresponding degree of relief, if not of cure; at least the patient will be benefited rather than injured by the operation. Some patients even say that they would gladly submit to the operation once in a few months, rather than suffer the hernial protrusion. The opinion of certain critics that the operation, if unsuccessful, would do harm by leaving the edges of the rings fringed and jagged and sensitive, may be safely left to the honest opinions of such gentlemen as may give the matter their careful consideration. The absence of cutting and irritation of the surrounding parts with the knife or sharp instrument, is opposed to this criticism. The parts after the operation become infiltrated, from the internal to the external rings, with plastic lymph. Should this give way, which may possibly occur, the previously agglutinated parts, we may presume, would remain as smooth and free as before the operation.

I have never seen a case once fully cured by this operation in which the relief has not been permanent. Even partial contraction of the rings certainly favors more or less retention of the hernia within the abdominal cavity. I have never observed a case in which reabsorption of the effused lymph had taken place, although subsequent rupture of the new plastic formation may occur. But in my experience, at least, it has not occurred to its former extent. I now refer to cases operated upon by Dr. Heaton, in which his plan, his instrument and his mixture were employed. In these cases I believe the cure would have been perfect had the treatment been repeated once or twice.

In my personal experience I have yet to see a case of relapse, nor do I believe such a case will occur

except in extreme old, congenital hernia, or as the result of undue straining due to convulsions, or to any other cause. My fortunate results may be attributed to my new instrument for making the injection (see plate and description in *New York Medical Record*, January 10, 1880), and to a more powerful mixture, which I am in the habit of using, the formula of which was published in the *Medical and Surgical Reporter*, March 13, 1880. Inguinal hernia, direct or oblique, is most easily treated by this operation, and a favorable result is most nearly certain. Umbilical hernia, in respect of results, stands next to the inguinal. The most uncertain variety, and the most dangerous to treat, is the femoral, which will be found to require much less fluid in proportion to its size than any other variety. I have expressed the opinion that ten drops injected into the femoral, are equal in irritative power to twenty drops in inguinal or umbilical hernia. Old ruptures with thickened sac and adhesions are more difficult to manage, owing to their attachments. In such cases, after reducing as much as possible, do not inject the sac all around, but throw the greater portion of the fluid upon the superior part of the adhering sac, so as to get abundant effusion to form attachments on the upper surface of the protruding sac. By this means we shall more probably secure both occlusion and contraction of the rings. This is because the superior parts of the hernial rings generally give way first, on account of contraction of the abdominal muscles. In such cases more or less bulging of the parts after the operation will generally be present, an appearance which may wrongly be considered by the inexperienced as evidence of failure. Close examination, however, will show that the protruding intestines are held securely in place. This bulging may be expected in all cases of old or long-standing rupture, because the muscles and integuments which have been so long distended by the protruding hernia, naturally remain pendent.

I desire to lay additional stress upon the fact that this latter class of hernia should receive the most stimulating fluid to produce an effusion that would be at all effective in forming adequate adhesions. Repeated injection will also be required more frequently. The cases most difficult to effect a cure upon are those of old congenital hernia in patients over forty. In these cases the pressure of the abdominal viscera has been so strong at the superior portion of the internal and external rings that the two rings have practically been fused, so to speak, into one, and the surrounding muscular fibers have been changed into an unyielding condensed tissue. Upon this structure no fluid injection whatever is to be relied upon as capable of producing much exudation of plasma. The adhesions, therefore, would be very delicate, and it is questionable whether such adhesions and contractions would form in these cases, even though the patient were kept quiet for a considerable time. I am now engaged in the study of these

doubtful cases, and have devised a procedure which seems to have promise of success. Should it succeed, I shall present it to the profession at a future time.

As regards the prospects for the relief of the sufferer from irreducible hernia, my friend, the distinguished J. Collins Warren, has devised and applied very successfully a rubber water bag, of which a full description of the application with illustration may be found in the Boston Medical and Surgical Journal, March 18, 1880. This, if successful, will give us a fair prospect of relieving many cases hitherto incurable except by the old radical operation, because, manifestly, if hitherto irreducible herniæ may be reduced, they would then be subject to the same conditions of treatment as the reducible.

In conclusion, I may say that from the great interest which this operation has called out, on both sides of the ocean, from very distinguished surgeons, a full and fair trial may be anticipated, and that, therefore, sufferers from this distressing malady may have permanent relief and cure, as they never before could hope or expect.

51 UNION PARK, BOSTON, MASS.

[An editorial notice of the subject of radical cure for hernia by subcutaneous injection by such irritating fluids as may cause slight inflammation about the rings resulting in a sub-cutaneous scar and consequent filling up of the hernial ring, and the formation of adhesions between this and the skin, with reference to the literature of the subject, may be found in our issue of February 20, 1880.—Ed.]

IN MEMORY OF JOHN MAYNARD WOODWORTH.

The President's Annual Address before the Alumni Association of Chicago Medical College.

BY NORMAN BRIDGE, M.D.

A year ago this association did itself the credit to compliment with the honor of its first office one of its most distinguished alumni. We then had the assurance that if he were living at the time of our next meeting, he would be present to preside and join in the festivities of our reunion. Ten days afterward Dr. Woodworth died, borne down by the care, solicitude and labor incident to the performance of the duties of a public office. This office was devoted by law to the care of a class of sick men throughout the country, and to the defense of the people from epidemics from abroad. It was dedicated to these ends in a higher sense, by a devotion and conscientiousness in duty rarely equaled in public service.

In view of this event it becomes, perhaps, a duty, certainly a privilege, for me to address you briefly now, and it seems fitting that the few words I speak should be devoted to reflections upon the life and character of him whom we had hoped might occupy this place. I shall not attempt anything like a complete biography. We may profitably study any life that is earnest and active. Useful lessons come from lives even that have little else to commend them than

that they were efficient toward the determining of events. The lives worthily spent instruct us most, and what to hold to,—the others show us what to avoid. But no active life that shapes affairs is wholly bad, and no career, however creditable, is entirely above criticism. Fortunately the record of Dr. Woodworth is such that we may uncover it anywhere.

The account of his early life shows a man of restless industry. He was born in 1837 in the state of New York, but most of his life was spent in Illinois. He received a part of his education at the Seminary at Warrenville, and later studied at the Chicago University, but he did not pursue any of the regular university courses to their termination. He early evinced a love of natural sciences, and we hear of him at twenty-one years of age as assisting in the organization of the Chicago Academy of Sciences. For a time he acted as its curator. He gave many hours and days to the gathering and care of specimens. I have heard him describe his part in the upbuilding of the young academy, and of once moving the quarters of the museum—many of the specimens being carried in loads on his shoulders. We hear of him the next year as being appointed Naturalist to the Chicago University, and the year following as going to Washington to study with Prof. Baird at the Smithsonian Institution. A number of young men in Chicago had, about this time, manifested an unusual interest in natural sciences, largely through the energy and personal magnetism of a young student, Robert Kennicott. Whether it is true or not, it is natural to see in the journey of young Woodworth to Washington to study with Baird, the traces of this interest, if not the influence of this man. How long he remained under the tutorship of the distinguished professor I do not know, but the next year he is back in Chicago and is studying pharmacy, and within a year from this time he has established himself in the retail drug trade with the aid of his brother, the senior Dr. Woodworth. He had now attained his twenty-fourth year, an age when active men are liable to have hardly recovered from the vacillation and uncertainty in the choice of a life-vocation. Woodworth had not yet found his right groove. Like many another young man who starts out with high aspirations and rapidly expanding thought, it seems he chose first a calling more ideal. He had mapped out a career in natural sciences. Doubtless it was painted in his imagination in its brightest colors. But at best such a work is slow and laborious, and does not offer early tempting rewards, at the same time it compels a man to close and often solitary study.

The sleepless spirit of this man pushed him toward the activities of men. He was not made for a closet student. It was inevitable that he would land eventually in a business of some sort, and he found himself in that of pharmacy. In whatever he undertook it was his ambition to excel. He entered into this new calling with enthusiasm, and the better to prepare himself he attended instruction in pharmacy and

chemistry in Rush College, under the late Prof. Blaney. I remember well hearing him describe the pleasure he experienced as he saw his store gradually assume an orderly and elegant appearance, and he showed me specimens of labels he had had lithographed and printed at that time, and called attention to their superiority over those then in general use in the city. But pharmacy was not exactly his ambition; it was too confining and its scope was too narrow. Medicine was a broader field, and one offering greater possibilities and larger rewards.

He must have commenced the study of medicine before he embarked in the drug trade, for he graduated from the Chicago Medical College in 1862. Indeed, it is likely he commenced it some years previously, for his elder brother, to whom he was greatly attached, was a practicing physician.

Immediately after his graduation in medicine he entered the army as an acting assistant surgeon. Soon he became assistant surgeon, then surgeon, then medical inspector of the 15th army corps, then medical director of the Army of the Tennessee, in which last capacity he accompanied the army that made the "march to the sea." Through these several stages of promotion he acquitted himself with high credit. His hospitals were complimented for their efficiency, and in the celebrated march referred to, he conducted an ambulance train with a hundred wounded,—many of them severely,—without the loss of a man.

On leaving the army he received the most flattering compliments from his commanding officers, for his faithful and patriotic performance of duties. He was mustered out of the service in 1865, and soon left, with Dr. Roler, for Europe. Returning in 1867 he opened an office in Chicago—I think with Dr. Jewell. He assumed then the duties of Demonstrator of Anatomy in the college, a position to which he had been appointed previous to his return from abroad. This position was not in its duties agreeable to his tastes, and he resigned it in the spring of 1869.

It was during the winter of, I think, 1868-9 that he delivered a short course of lectures on Zoölogy to one of the classes of the college. He was not a popular teacher, and never would have been with undergraduates; he was too deep and wide and minute in these lectures for that. He feared to trust himself to extemporaneous teaching, and his lectures were written with all the care and accuracy that a man would observe in preparing a treatise for the printer, or a thesis on which sharp and merciless critics were to sit in judgment. He put days and nights of hard work into those lectures; they were listened to by but a few students, who certainly mostly forgot them; but the labor bestowed upon them was a work of preparation for their author that was to make him strong, and fit for another work that was waiting to give him a reputation around the world. It was during his last winter as Demonstrator of Anatomy that it was my good fortune to make his intimate acquaintance. In the capacity of an assist-

ant it was my duty to confer with him often and intimately. I was strongly impressed with his fine nature and feeling, and a culture that commanded my admiration, but most with his uniform purity of purpose. He appeared to be entirely devoid of the unscrupulousness and mean jealousy that a few cultivated scientific men have, and take no pains to conceal. His heart was as tender and gentle as that of a child. He was even consciously honest in his traffic in material for dissection. From my observations, then and since, it has become a belief that of all men on earth not to be trusted out of your sight a man engaged in this traffic is preëminent. But if I ever knew a man to be nearly a clear exception to this rule, that man was Dr. Woodworth; and if there were any irregularities or questionable practices in the anatomical department during that winter, he was not responsible for them.

In 1868 Dr. W. was appointed surgeon to the Chicago Soldiers Home. He was also for a time connected with the sanitary corps of the board of health of the city.

He remained in Chicago engaged in practice until his appointment to the new position of supervising surgeon of the Marine Hospital service in 1871. This position may almost be said to have been created for him; for it was by the original action and earnest advocacy of his old friend and commander, then in the senate, that the office was erected, and it was undoubtedly by his efforts that Dr. W. was appointed to the position. We are all somewhat familiar with his work as supervising surgeon of the Marine Hospitals. His success was more than any one, beside perhaps himself, ever expected. If one may credit good witnesses, he found this branch of the work of the Treasury Department in utter confusion. It exemplified the truth that the interests of the public have, generally, no one to watch and protect them as his own. The expenses of the hospitals were enormous and exceeded their income; the sick sailors were not sure at all points of the care and attention required, and there was little order, uniformity and enthusiasm among the medical officers. The appointments to the service were thoroughly political, and the work of the service was performed as political work is usually done.

Dr. Woodworth had the faculty of order and system to an extreme degree. Disorder was positively painful to him. His executive ability was remarkable. He was fertile in resources, especially when resources could minister to his notions of the regularity and propriety of things.

No better opportunity for the exercise of such faculties could possibly have been offered than he found in his new office. He went to work to bring order out of chaos, and perfect his ideal of a well managed service; but his ideal included the raising of his professional brethren in the service out of politics, and putting them on the higher plane of science and professional emulation. Both of these purposes he consistently accomplished.

His successor in office says of him: "He was the first incumbent of these offices, and to carry into effect a general plan of much needed reorganization. The service had been in existence since 1798, but as there had been no one at its head familiar with professional details, it was wastefully and negligently managed. Hospitals were built where there were no sailors; vagrants and wanderers generally were admitted to hospitals, to be supported by the fund accruing from taxation of seamen; large, expensive, inconvenient buildings had been erected, and as there was little responsibility there was corresponding neglect. Dr. Woodworth, therefore, found in the work of reorganization ample scope for the exercise of his fine executive ability. He wrote new regulations, abandoned the useless hospitals, established a system of appointment and promotion of medical officers after proper examination, inculcated discipline and economy, and by wise and vigorous measures soon brought the expenditures of the service within its income,—a feat which, prior to his administration, had never been accomplished."

His scientific writings are few, and are found mostly in his official documents in the form of his reports. His style as a writer was direct, clear and positive. His official documents, his orders, the regulations written for the service, and his reports to the Secretary of the Treasury, are masterpieces in their way, and show him to have been a born executive officer. He made no pretense of adding to the sum of human knowledge. He was not a discoverer, and made no original research, except as he aided, near the close of his life, in an effort to solve the problem of the etiology of yellow fever. Indeed his inclinations were not of the kind to impel to such efforts, nor were his research and scholarship sufficient. He was not a critic of mankind for their lack of knowledge; that is the part of the original investigator, and of him who scrutinizes every fact, new or claiming to be new—who compares it with the old facts and gives it credit for its novelty, or consigns it to the limbo of the impositions and the useless. Such a man is absent-minded, cares little for the appearance of things, is not fastidious. Such an one is not often a good executive mind, and such was not Dr. Woodworth. His was a mind full of the emotions, and he delighted in the amenities of life and the appearances of things. He watched mankind, and while ever true to himself, to his profession and to truth, it was his natural as well as his chosen field to work to help the world use the science already in the store-house, and use it well; to help men to have wisdom with their knowledge. To add to the sum of knowledge is the privilege of the few. A man may study and delve a lifetime, and think he has helped us on materially, without adding a particle to the stock. The reputation of a student is made by the addition of a single valuable fact. Most of the new treatises on scientific subjects are barren of any addition to what we had before; and if a man has one new thing to tell he is likely to feel the afflatus to

write a volume which (if he does) is replete with old truths wrought into a fitting frame for this one that is new. The patent office is full of models and specifications, and its files groan with applications for letters, yet the discoverers might almost be counted on the fingers of a man's hands. But it is the privilege of us all to use the knowledge we have better than we do. Enlightened mankind do not, in mass, live up to the science we have already gained. Knowledge is valueless until efficiently put to use.

Dr. W. was not a genius or an original investigator, but he had a genius for devising means of doing some things better than they had been done before, and these faculties found full play in the duties of an executive medical officer, confronted with difficulties and beset with disorder. This man was disinterested. He devoted his time and energy, his heart and his money, to the ends of the profession and the service of his office. It was his ambition to make this a success, and a credit to himself and the nation. He had no ambition for money-making that could at all compare with this. He died poor. Let us learn from this man's life a lesson that shall be valuable because it is true, and truly taught by a career not phenomenal, but possible to many.

We are in little need of phenomenal men; we could get on fairly for a century without another genius; but we do need men in our profession who are true to it, and too sensitive of its fame ever to dishonor it. Such a man was the deceased President of this Association. We want men who, while anxious for new truths, strive that the profession may make the best use of what they have. We want men in the profession who are unwilling to study medicine simply and alone; who have sympathy with, and some part of, the philosophy and culture and art and life of the great world outside. We want men who, while they are good students and fair practitioners, live lives that are above reproach; who if they make mistakes—as all do—are clear of all possibility of a motive toward any evil. Dr. Woodworth was all this; and he added to it all the record of a difficult work, accomplished by his ability, industry and high purposes, that will be a monument to his honor as long as the history of the governmental progress and administration of this century is known and read.

A NUMBER of sudden deaths have recently been reported from a disease called black measles, which has been quite prevalent in Petersburg, Va., and vicinity.

MORE than ten thousand women are delivered annually at the Lying-in Hospital in Vienna. This is the largest institution of the kind in the world.

DR. H. GRADLE has recently been elected professor of physiology in the Chicago Medical College, vice Dr. D. T. Nelson, resigned.

CORRESPONDENCE.

CONTRA STIMULUM CALCAS.

CHICAGO, April 6, 1880.

TO THE EDITOR OF THE CHICAGO MEDICAL GAZETTE.

The medical profession has reason to regret that a resolution like that entertained by the Chicago Medical Society on the evening of the 5th inst. should ever be presented to a medical society for consideration. The resolution reads as follows: "Resolved, that the names of druggists should be kept from prescription blanks, and the words 'not to be duplicated' inserted."

It is to be regretted because the question is a purely commercial one, and it must be evident to all upon mature consideration that anything of a commercial character, or anything that has the slightest flavor or suspicion of the commercial, should never find a place or be discussed in a purely medical or scientific body. Such questions are outside matters with which societies as such have nothing whatever to do. They should be left to individual discretion. Each member is probably capable of attending to his own business, and, resolution or no resolution, he will insist upon and persist in doing it so long as he has a spark of manly independence left. The same is true of pharmacists.

To insert the words "not to be duplicated" is ridiculous in the extreme. Such a rule would be and should be inoperative. It is a meddlesome interference with the business of another. Again: suppose we write for a cough mixture, to be taken *pro re nata*. The whole three or four ounces are gone by the evening of the second day. The patient lives in Hyde Park, his physician on the West Side. Must he continue to cough and suffer and wait till the morrow to get his physician's permission to have the prescription refilled? No; the druggist would give no heed to such a request in the first place, and if he did so foolish a thing the patient would assert his rights and wisely take the prescription to another place. For is not the prescription his own property? Has he not paid for it? Must he, every time he wishes it refilled, pay an extra office fee for the privilege? We can imagine with what forcible language most men would denounce such a restriction if they were men who felt, and how loudly they would laugh at it if they were men who thought. There is but one kind of prescription that should be prevented from repetition, and that is one by which a large dose of a dangerous drug is given to meet a particular emergency. In such a case the physician might request the druggist not to duplicate it; but even then it would be better to leave the matter to the common sense and judgment of the competent pharmacist, with whom alone he is supposed to deal.

The prescription belongs to the patient. Let me dwell a moment on this point. The patient has bought the prescription and paid for it. It is his own. He did not go to his physician to buy some old hack-

neyed routine formula, otherwise he would have sought a remedy among the patent medicines. He came to buy a prescription for a physical ailment peculiar to himself at the time. The fee he had to pay covered the expense of a thorough inquiry into his case, including an examination and prescription. It was to obtain these combined benefits that he visited a physician at all, otherwise he might as well have gone to the apothecary at once. The physician makes the required examination, gives diagnosis and prognosis, and, if he is a versatile and accomplished prescriber, gives also a prescription nicely adapted to relieve the disorder he finds existing. The patient pays for all and they are his own—the interpretation of his case and also the prescription. The latter is no longer the doctor's. It is certainly not the druggist's and cannot come into his possession unless he begs or purloins it. *It is his own. When it is put up it should be returned to him.* The druggist is entitled only to a copy. This is according to the English precedent—a time-honored practice which is the slow outgrowth of hundreds of years of experience. The prescription is compounded, the druggist makes and retains a copy, and returns the original to his customer. He thus recognizes the rightful ownership, and whether or not he ever has an opportunity to put it up again will depend upon the confidence he has inspired, his pharmaceutical excellence and business sagacity.

DR. JAMES I. TUCKER.

CLINICAL REPORTS.

ANTERIOR POLIOMYELITIS.

A Clinic by Prof. Wm. E. Quine at the Mercy Hospital.

REPORTED BY MR. E. W. ANDREWS.

The patient is thirty-two years of age. He has no hereditary tendency. He has always been temperate and free from venereal contamination. His health was good up to the date of the occurrence of the present malady two months ago. For a number of years back his employment has been such as made it necessary for him to maintain the standing posture throughout the hours of work. Two months ago he recognized the fact that his lower extremities were becoming weak, and that they were never free from sensations of weariness. The disturbance developed insidiously and without known cause; but two or three days after the patient's attention had been engaged by it he noticed a rapid increase in the severity of the symptom. The weakness merged into positive enfeeblement, and the feeling of weariness became distressing. There was no appreciable fever and no severe pain, but the patient remembers that in the first few days of his sickness there were dull shooting, unsteady pains of mild grade in his back and lower extremities. The condition of the patient became more and more helpless for a week or ten days, but

since that time he has not noticed any aggravation of his symptoms. There has not been complete loss of power at any time, but the movements of the limbs have been limited and very feeble. The patient directs attention to the fact that soon after the beginning of his disease he noticed the occurrence of rapid wasting of the extremities and of increasing flabbiness of them. The present condition of atrophy is very remarkable, and fully equal to the paralysis in degree. There has not at any time been disturbance of the bowels and bladder. They have performed their functions in a normal manner. The generative function is not affected. The general nutrition of the patient is good, and he is cheerful and free from pain.

His feet are cold and bluish, and they assume a position of unusual extension. His legs and thighs are small and soft. They appear to be normally sensitive, or nearly so, to painful impressions and to variations in temperature, but their reflex excitability has been almost completely abolished. Appetite and digestion are good. The condition of the patient is not as helpless as it was. There has been slight improvement in point of strength, but the process of restoration seems to have been arrested. The improvement has been most conspicuous in the arms. For two or three weeks these had been pretty decidedly enfeebled. There was especially noticeable an impaired mobility of the fingers and thumbs, and this was better marked in the right member than in the left. Some wasting of the arms had also occurred. From the second or third week the upper extremities have improved in every respect, and now there is hardly an appreciable change from the normal state in their dimensions and movements.

The history is fairly typical of subacute spinal paralysis. We exclude at once the possibility of the paralysis being of cerebral origin. There has not at any time been impairment of intellect or consciousness, and there has been no evidence of impairment of innervation or nutrition in any part above the cervical portion of the cord. The case is one of spinal paralysis. It is not locomotor ataxia. This disease has a history of slow and insidious progress. The ataxic manifestations are much more conspicuous than the paralytic. Even in advanced ataxia, patients have strength enough to stand and walk, but they are unable to combine movements. The extremities of this patient are almost powerless, while their sensibility is but slightly if at all impaired. The movements, such as they are, are regular and steady enough. The case is not one of ataxia. Nor is it central myelitis. In this disease sensibility is strikingly affected, neuralgic pains occur, there is apt to be trophic disturbance of the skin, obstinate constipation and retention of urine. None of these symptoms are presented by the subject of our remarks. His disease is not central or general myelitis. Is it a case of hemorrhage into the cord? It is not hemorrhage. It is very unlikely that blood should escape in such a manner from the vessels of the cord as to

compress exclusively its motor columns throughout their entire length, or to be more precise, the cervical and lumbar portions of the motor columns, leaving other portions of the cord intact. Hemorrhage has often a history of traumatism. When it occurs it is apt to occur suddenly, and paralysis due to it is also apt to be of sudden development. Cases of hemorrhage do occur, however, in which it is impossible with present knowledge and method to make a reliable diagnosis. Such cases are sometimes simulated by inflammatory affection of the cord. Differentiation here is not a matter of much practical importance. If the subject of hemorrhage into the cord have not inflammation to begin with, he will be very apt to have it to end with. This case we may reasonably conclude is not one of hemorrhage. The absence of antecedent history, to say nothing of the typical features of the disease, tells us that we are not dealing with a case of diphtheritic paralysis. Have we here a case of acute ascending paralysis, or Landry's paralysis? No. This disease, as its scientific title implies, is an acute paralysis, and it travels from below upward. It begins in the toes and feet, invades the legs and thighs, involves the abdominal and thoracic muscles, and consequently embarrasses respiration. Still it ascends, and now the medulla is affected, and life is speedily extinguished. The disease is very acute and speedily fatal. This is an example of a different type of disease. It is not Landry's paralysis. Is it progressive muscular atrophy? No. Muscular atrophy is a progressive disease. It comes on insidiously. It does not cause quick and complete paralysis of the extremities. It affects individual muscles and groups of muscles here and there, and local wasting is always more conspicuous than widespread paralysis. It is poliomyelitis anterior, or inflammation of the anterior horns of gray matter. We have arrived at this conclusion partly by a process of differentiation, and partly by contemplating the features of the case itself. The disease has long been known to the profession under the names essential paralysis and infantile paralysis, although a correct understanding of its pathological nature has been arrived at within a comparatively recent period. It was called "essential paralysis" because it was supposed to have no pathological anatomy, and "infantile paralysis" because it was believed to be peculiar to young subjects. Now it is known that adults, although they are affected but rarely, do not enjoy complete immunity from the disease. Nearly all the precise and definite information at our command concerning this disease is the fruit of the last ten or fifteen years' investigation. The same may be said of most of the other diseases of the cord. Poliomyelitis, although an inflammation of the anterior columns, varies in extent and violence. It is almost always bilateral and of equal severity in the two sides. In some cases the whole thickness of the anterior horn is involved, and in others the inflammation is less extensive. Now and then cases are seen in which the

morbid process has involved nearly the whole of the motor columns of the cord. These variations in the extent of the inflammation involve corresponding variations in its manifestations. As we have already stated, the disease is generally met with in infancy and early childhood, although in exceptional cases, like the one before you, it occurs in adult subjects. The extremes of age are two months and seventy years, but the great majority of cases are seen in the first and second years of life. At this time the teeth are in process of active development, and the child is just learning to walk. The establishment of the function of locomotion is undoubtedly attended with increased vascularity and increased functional activity of the cord, and it consequently sustains a causative relation to poliomyelitis, in the sense that it awakens susceptibilities that had previously been dormant, and which at later periods of life are more or less subdued. It must be remembered in this connection, however, that the tracts which convey volitional impulse, and are chiefly concerned in voluntary motion, such as locomotion, are not the parts most prominently involved in the disease under consideration; it is the reflex centers that are involved. These tracts—the pyramidal tracts and the anterior horns of gray matter—are of course intimately connected by fibers. The fibers of the pyramidal tracts must have an outlet in the motor nerves, and the roots of these nerves, as will hereafter be seen, are involved in the destructive changes which have invaded the anterior horns. Hence paralysis of voluntary motion in this case depends less on any changes that may have taken place in the pyramidal tracts than it does upon the fact that the lines of communication between these tracts and the motor nerves have been incapacitated. The precise causes of poliomyelitis are undiscovered. Age constitutes a potent predisposing cause, but hereditary taint and constitutional disease do not seem to increase the tendency to it. Season seems to modify the predisposition to the malady, for it originates much more frequently in the summer months than at other times. The exciting causes are no better defined. Traumatism may in exceptional cases serve as the starting point of the morbid action, but in the vast majority of cases the inquisitiveness of the doctor is only rewarded by the satisfying supposition that the patient has "taken cold."

The symptomatology of this disease is more clearly defined than it is in some of the other diseases of the cord, but it must be clearly remembered that the extent of the central lesion varies in different cases, and that there are wide differences in the rapidity of development. It is convenient to recognize the three grades of morbid action, acute, subacute and chronic. Acute anterior poliomyelitis may be developed in an hour, and even during sleep, but usually from twenty-four to forty-eight hours are occupied in its development. It is not a painful disease, if we except the transitory backache and the dull, erratic pains in the

limbs. It usually is not attended with great vascular or mental disturbance. In exceptional cases convulsions and a moderate grade of fever are among the initial symptoms, but as a rule the disease is unattended with violent manifestations. Motor paralysis of the extremities, and chiefly of the lower extremities, becomes apparent at once. It varies in degree from a slight paresis to a complete paralysis. General sensibility, the bowels, and the bladder, are unaffected. The upper extremities are less completely paralyzed than the lower. In two or three days the premonitory fever, the backache, and the pain in the limbs disappear, and some restoration of muscular power ensues. This improvement is very characteristic of the disease. In very exceptional cases it advances steadily to complete recovery, but in the great majority the improvement stops short of complete restoration. Motor paralysis remains. It is permanent, and attended with very rapid muscular atrophy. The atrophy is not the wasting of disease, but it is an active process, and depending on the disturbance of the trophic centers in the cord. The child grows up and may live to an advanced age. General nutrition and vigor may be good, but the dangling and wasted limbs of the child are appended to the well developed body of the adult. Growth of the paralyzed parts is arrested. The atrophy becomes extreme. Paralytic contractures sometimes occur, resulting in talipes and other unsightly deformities. The acute variety of the disease is distinctly non-progressive. The paralysis reaches its maximum degree and extent within a few days and sometimes within a few hours. From this time no advance in the disease usually occurs. Secondary changes occur in the paralyzed parts, but these are not occasioned by extension of the central disease. The affected muscles are often sensitive to pressure. The symptoms of the subacute and chronic varieties of poliomyelitis are essentially the same as those that have been described, except that they are more slowly developed and less apt to be attended with violent perturbations. I have already in general terms referred to the pathological anatomy of the disease. It consists essentially of inflammation of the anterior cornua, and it reaches its highest grade of development in those portions of the cord whence the nerve trunks for the upper and lower extremities are given off. In the portions indicated—the cervical and lumbar enlargements—irremediable changes usually occur; but the intervening parts of the cord, if involved in the inflammation at all, are likely to regain their normal functional power. The precise nature of the changes that are found after death depends largely on the chronicity of the affection. These changes constitute so many stages of development. At first there is inflammatory softening of the affected portion of the cord, more or less engorgement of the vessels, more or less cellular hyperplasia, more or less destruction of the multipolar ganglion cells, and more or less disappearance of the nerve fibers and axis cylinders. The anterior or motor

roots exhibit similar changes, which are due to softening atrophy and final disappearance of the cells and fibers. If the cord be examined after the disease had been in existence for many years, decided contraction and hardening of the anterior portions will be observed. The malatia has given way to sclerosis. The connective tissue has undergone remarkable development and contraction, and the proper nervous elements have been more or less completely obliterated. Similar changes occur in the motor nerves. The muscles exhibit a remarkable degree of alteration. It consists essentially of fatty degeneration and cellular hyperplasia, and complete obliteration of the muscular fibers. The destructive changes in motor nerves, muscles, and sometimes even in bones, are ascribable to the influence of the central lesion in destroying the trophic centers of these parts. These trophic centers are located in the anterior cornua, whereas the ganglia on the roots of the sensory nerves are intimately connected with tegumentary nutrition. The secondary contractions and deformities depend on a variety of circumstances. Some muscles are paralyzed and others are not. The unaffected muscles are shortened by continued contraction when their antagonists are powerless to prevent it. In some instances the mere weight of a paralyzed limb may tend to cause deformity, and in numerous others deformity is produced by the persistent contraction and hardening of the new growth of cellular tissue in the muscles.

The prognosis is unfavorable as to recovery, and favorable as to the continuance of life. Perfect recovery occurs but rarely, and, on the other hand, the disease does not often destroy life quickly. The paralytics may live to an advanced age, enjoy a fair degree of bodily vigor, marry, have children, and die of some intercurrent disorder.

The treatment of acute spinal paralysis, though discouraging in its general results, may often avail to diminish the intensity of the primary inflammation and limit the destructive changes which follow in its wake. We cannot reasonably hope to effect a cure, to repair irreparable injury, but we can reasonably expect to improve the prospects of recovery. If a diagnosis be made early, the treatment that would be appropriate would comprehend the use of efficient antiphlogistic medicines and measures. Local abstraction of blood from the cervical and lumbar regions of the spine, counter-irritants to the same localities, ergotin by injection under the skin of the back, bromide and iodide of potassium in free doses, and moderate doses of some mercurial compound, would probably prove as beneficial as any treatment, merely medical, that could be devised. Later, cod liver oil, malt extract, compound syrup of hypophosphites, phosphorus, phosphide of zinc, and other restorative hematics may be employed with reasonable hope of benefit. Strychnia, employed by the stomach or endermically after the complete subsidence of acute symptoms, has often produced good results, one or two of which have occurred under my own

observation. The galvanic current is one of the most useful remedies at our command in the treatment of this disease. It may be brought to bear directly upon the diseased portions of the cord, large electrodes being employed, so as to cover the whole area of the cervical or lumbar enlargements at one time. The electrodes may be placed one upon the spine, and the other upon the anterior aspect of the body, and a current of moderate strength should be allowed to pass antero-posteriorly directly through the cord, and then by reversing the electrodes the direction of the current may be reversed for the same length of time. The earlier this treatment is instituted the better. For the rest, electricity and massage to the paralyzed limbs, nutritious food, etc., and, in case of deformity, orthopedic appliances, would enable us to do all that can be done to improve the condition of the patient.

REVIEWS AND NOTICES.

THE HAIR; ITS GROWTH, CARE, DISEASES AND TREATMENT. By C. Henri Leonard, M.D. Detroit: C. Henri Leonard, publisher, 1880. Jansen, McClurg & Co., Chicago. Price \$2.

In the preface the author says the book is intended simply as an introduction to a second and larger work, in which he expects to classify animals from the differences in the microscopical structure of the hair-shafts. The book under consideration has been written both for the laity and for the profession. This, in general, would be a reason for condemning it as a medical book, but the profession are almost as ignorant on this subject as the laity, and this was doubtless the author's reason for the plan followed. The book contains many curious facts not generally known. The subjects are treated with fair ability and thoroughness. We believe the book to be a useful one, and hope it will have a large circulation.

HEADACHES: THEIR NATURE, CAUSES AND TREATMENT.—By William Henry Day, M.D., Member of the Royal College of Physicians of London; Physician to the Samaritan Hospital for Women and Children. Third edition, with illustrations. Philadelphia: Lindsay & Blakiston, 1880. Chicago: Jansen, McClurg & Co.

When a work has passed through three editions without very material alterations, it may be taken as evidence that it possesses a certain amount of merit. This inference is confirmed in the present case by a perusal of the volume, which is a very practical and useful, if not an altogether well arranged and scientific one. The author takes up the different clinical forms of headache, arranged according to a classification of his own, describes their symptoms and treatment, and at the end of the book adds an appendix of formulæ that will be undoubtedly used by many of his readers. This seems to be an English custom, as we observe it most frequently in reprints of English books; and, though it gives the work a sort of cook-book appearance, it has its advantages and is not to

be condemned. The defects of the work are the classification, which is more pathological than clinical, and yet not very consistently pathological, and the omission of all mention of some very important contributions to our knowledge of the disease or symptom of disease, as it happens to be. For example, we find only one brief reference to the use of cannabis indica in headache, and no allusion whatever to the therapeutic experiments and results with this drug of Seguin and others. These, while not fatal defects, seriously impair the value of the work. But in spite of these defects the work is a sensible, practical one, that can be of service to whoever chooses to avail himself of it. It is well worth adding to the library of a practitioner.

OUR HOMES. By Henry Hartshorne, M.D., formerly Professor of Hygiene, University of Pennsylvania. American Health Primers, No. IX. Edited by W. W. Keen, M.D. Presley Blakiston, publisher, Philadelphia. Jansen, McClurg & Co., Chicago.

This book treats, in a popular and useful way, of the following subjects in relation to the home: Situation, construction, light, warmth, ventilation, water supply, drainage, disinfection, population. The last chapter is given to a consideration of homes for workmen. It is a book of 149 pages. If the information which it contains were the property of the general public, there would be less need and more appreciation of boards of health.

MEDICAL CHEMISTRY, INCLUDING THE OUTLINES OF ORGANIC AND PHYSIOLOGICAL CHEMISTRY. By C. Gilbert Wheeler, Professor of Chemistry in the University of Chicago, etc. etc. Chicago: S. J. Wheeler.

This is a revision and enlargement of Professor Wheeler's "Modern Organic Chemistry," which appeared in 1877. The typographical errors of the latter, which were many, do not appear in the present work, and the completeness of the new book is enhanced by the incorporation in it of a very readable section on animal chemistry. The volume before us is sadly superficial however, and it falls far short of sustaining the expectations which its title had awakened. Its dimensions and letter-press would barely suffice for a check list of the more important organic compounds, although it attempts not only this but a discussion of theoretical, organic, and a résumé of physiological chemistry as well. In any of these departments our author is, no doubt, capable of producing a text-book of the dimensions of the one under review, without involving the slightest appearance of prolixity. His attempt to elaborate a species of multum in parvo is, however, not a very brilliant success. We are unable to see exactly the utility of such a book to the student of chemistry: It is too technical to be popular, too superficial to be scientific, and too incomplete to be satisfying. We may be a trifle captious in this matter, but still we feel that a book which lays claim to being a "revised modern" work, should recognize in some way the

existence of such important compounds as butyl chloral, amyl nitrite, sodium ethylate, ethyl bromide, methylene bichloride, etc. etc. A book covering the ground indicated by the title of this one and embracing the essentials of Bernay's check list, Bowman and Greene's medical chemistries, and Gorup-Besanz's physiological chemistry, would be invaluable to teachers and students alike. H.

ON THE INTERNAL USE OF WATER FOR THE SICK, AND ON THIRST. A clinical lecture at the Pennsylvania Hospital, October 25, 1879. By J. Forsyth Meigs, M.D. Philadelphia: Lindsay & Blakiston.

This monograph is a pamphlet of fifty-four pages. After giving a somewhat extensive history of various cases which show that the sick are sometimes improperly deprived of water by the physician, for certain practical reasons, or through inattention on the part of the physician or the nurse, the author relates the history of some of those cases in which persons have been deprived of water by accident, to show not merely the suffering caused by this loss, but certain morbid conditions determined by it. He then considers the physiological functions of water in the economy, the amount daily required, and its important office of regulating vital heat by evaporation from the lungs and skin. Lastly, the attempt is made to establish fixed rules of practice as to the amount required by the sick. The general rule for determining the amount of water to be consumed by the sick is given as follows: "So long as the patient retains his natural senses or appetites there is no guide so safe or so sure as the thirst. When this is lost the trained knowledge of the physician or the common sense and experience of the nurse must determine the quantities that must be given." The pamphlet has been written in popular style, and deserves a wide circulation with the public and with such physicians, if there be any, as follow the destructive practice of denying water, in liberal amounts, to their sick patients.

BOOKS AND PAMPHLETS RECEIVED.

North Carolina Board of Health, Monthly Bulletin, February, 1880.

J. W. COMPTON, M.D. The Therapeutic Action of Quinine, Reprint from the Indiana Medical Reporter, March, 1880.

D. A. K. STEELE, M.D. Death from Gunshot Wound in the Head. Bullet Imbedded in Brain Substance, Death on Eleventh Day. Reprinted from Chicago Medical Journal and Examiner, February, 1880.

HENRY HARTSHORNE, A.M., M.D. Our Homes. American Health Primers No. IX.

JAMES NEVINS HYDE, A.M., M.D. On a case of Molluscum Verrucosum, Presenting Certain Unusual Features. Read at the Third Annual Meeting of the American Dermatological Association in New York, 27th August, 1879. Reprinted from the Edinburgh Medical Journal for February, 1880.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, JANUARY 1 TO MARCH 31, 1880.

Bailhache, P. H., Surgeon. Detailed as president Board of Examiners to convene in Washington January 26, 1880. January 14, 1880.

Miller, T. W., Surgeon. Detailed as member Board of Examiners to convene in Washington January 26, 1880. January 14, 1880. To proceed to Chattanooga, Tennessee, as inspector, January 28, 1880.

Wyman, Walter, Surgeon. Granted leave of absence for twenty-one days, from February 7, 1880. February 6, 1880.

Murray, R. D., Surgeon. Granted leave of absence for twenty days, from April 10, 1880. March 16, 1880.

Fessenden, C. S. D., Surgeon. Detailed as recorder Board of Examiners to convene in Washington January 26, 1880. January 14, 1880.

Fisher, J. C., Assistant Surgeon. To report to Board of Examiners for examination for promotion. January 28, 1880.

White, Robert, Jr., Assistant Surgeon. Granted leave of absence for thirty days on account of sickness, from February 23, 1880. February 21, 1880.

O'Connor, F. J., Assistant Surgeon. To proceed to Evansville, Indiana, and assume charge of the service at that port. March 17, 1880.

DEATH.

White, Robert, Jr., Assistant Surgeon. At New York, N. Y., February 24, 1880.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY FROM APRIL 1 TO 10, INCLUSIVE.

Leave of absence granted P. A. Surgeon S. H. Dickson, with permission to leave the United States.

P. A. Surgeon E. Z. Derr, detached from the Receiving Ship at New York and ordered to Naval Hospital, Norfolk, Virginia.

Assistant Surgeon detached from the Colorado on the 14th inst., and W. O.

P. A. Surgeon W. R. Du Bose, detached from the Naval Hospital, New York, and ordered to the Receiving Ship at New York.

Assistant Surgeon F. S. Nash, detached from the "Lackawanna" and ordered to the Receiving Ship at New York.

P. A. Surgeon A. C. Heffinger, detached from the Naval Hospital, Chelsea, and ordered to the "Lackawanna."

P. A. Surgeon G. P. Bradley, ordered to the Naval Hospital, Chelsea.

P. A. Surgeon C. W. Deane, ordered to the Receiving Ship at Boston.

P. A. Surgeon A. A. Austin, detached from the Navy Yard, Norfolk, and ordered to the United States Ship "Richmond."

P. A. Surgeon J. F. Bransford, to be detached from the "Richmond," on reporting his relief, and ordered home.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM MARCH 29, 1880, TO APRIL 12, 1880.

Norton, S. M., Major and Surgeon. After complying with instructions from these headquarters of January 28, 1880, to proceed to Fort Douglas, Utah Territory, and report to the Commanding Officer for duty as Post Surgeon. S. O. 30, Department of the Platte, April 6, 1880.

By S. O. 74, A. G. O., April 3, 1880, the following changes are made:

Assistant surgeon G. P. Jaquett is relieved from duty in Department of the South, and assigned to temporary duty at David's Island, N. Y. H., relieving Surgeon A. K. Smith. Surgeon Smith when relieved will report in person to Commanding Officer Department of Arizona for duty as Medical Director of that Department, relieving Surgeon J. C. McKee. Surgeon McKee when relieved will proceed to New York city and report arrival to the Surgeon-General.

The following named officers are relieved from duty in the Departments set opposite their respective names, and will report in person to the President of the Army Medical Examining Board in New York city for examination for promotion, and upon completion of examination report by letter to the Surgeon-General:

Assistant Surgeon Daniel Weisel, Department of the Columbia.

Assistant Surgeon P. F. Harvey, Dep't of Dakota.

Assistant Surgeon C. K. Winne, Dep't of the Platte.

Assistant Surgeon V. Havard is relieved from duty in Department of the South, and will report to President of Army Medical Examining Board, New York city, for examination for promotion, and upon completion of examination, in person to Commanding General Department of Texas for assignment to duty.

The following named officers are relieved from duty in the Departments set opposite their respective names, and will proceed to New York city, reporting arrival to the Surgeon-General.

Surgeon C. E. Goddard, Department of Texas.

Assistant Surgeon F. Meacham, Department of Texas.

Assistant Surgeon J. C. Ainsworth, Dep't of Arizona.

Assistant Surgeon C. E. Price, Dep't of California.

Assistant Surgeon M. W. Wood, Dep't of the Platte.

Assistant Surgeon W. C. Shannon, Dep't of Texas.

Assistant Surgeon L. S. Tesson is relieved from duty in Department of Dakota, ordered to St. Louis, Missouri, and report arrival to Surgeon-General.

Assistant Surgeon W. Reed is relieved from duty in Department of Arizona, will proceed to Richmond, Virginia, and report arrival to Surgeon-General.

Chicago Medical Gazette.

PUBLISHED ON THE 5TH AND 20TH OF EACH MONTH.

OFFICE OF PUBLICATION, 70 MONROE STREET.

TERMS, \$2.00 A YEAR, IN ADVANCE.

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Editorials under the heads of the special departments may generally be accredited as indicated above.

VOLUME I.

CHICAGO, MAY 5, 1880.

NUMBER 9.

THE ALIENIST AND NEUROLOGIST.—Speaking of the reception by the medical press of the country of its first issue, the editor of the *Alienist and Neurologist* says in the April number: "The nearest approach to criticism comes from two of our Chicago contemporaries (whose good opinions we heartily reciprocate and hope to retain) in the shape of an exception to that portion of our January editorial wherein we express our preference for the conclusions of practical experience respecting the pathology of insanity, and the proper management and treatment of the insane, over mere theoretical notions respecting them. We have thoughtfully noted the exceptions of these estimable journals, and are still unpersuaded of error. Notwithstanding the anomalous views implied or directly expressed in these and other questions of late, to the effect that those who have become most familiar by personal intercourse with the insane, in the capacity of physicians, know least about them, we must continue to hold the opposite opinion until confronted by more cogent convictions to the contrary." Since our notice of the *Alienist and Neurologist* is one of those here alluded to, we wish to say that our exception was not made exactly as here stated, but on account of the inference we drew from Dr. Hughes' salutatory (which is fully justified by the editorials in this latest issue) that he intended to make his journal the defender of the Association of Superintendents of Asylums against the strictures which we, among others, have felt justified in offering. We can readily admit all that is said in the above quotation without accepting the assumption that the Superintendents' Association contains all practical knowledge of the pathology and treatment of insanity. There are physicians in this city and in New York who see every year more fresh cases of insanity than

are seen by the average asylum superintendent in the same period, and whose knowledge of the pathology of insanity—which is not largely contributed to from our asylums—is incomparably superior. Indeed, if it were desired to learn about the cases and the treatment in many asylums, our own past experience would lead us to apply to the assistant physicians rather than to the official head of the institution. We have never, with our own knowledge and consent expressed the opinion that those who, by personal intercourse in the capacity of physicians with the insane, had become most familiar with them were the ones who knew least about them, although it is not altogether impossible that this may be so. We have only entertained the opinion, and may have expressed it, that many of those whose opportunities ought to be the best for the scientific study and treatment of insanity are far from being what they should be with these opportunities; that they have taken the key of knowledge and will not enter in, and those that were entering in they have hindered. It has been and still is in the power of the Association of Superintendents to make itself a scientific body, containing all qualified medical workers in the department of mental disease, and we trust that there is enough of a progressive element in it to yet bring this to pass. As at present constituted, it is too much a mutual admiration society composed of executive officials; its membership is dependent on the politicians and not upon medical qualifications or even medical orthodoxy. These facts cannot be unknown to Dr. Hughes, and they should, it seems to us, modify his zeal somewhat in the defense of the Association. There are many superintendents, and among them nearly all the really able men in the Association, who will admit this truth and regret the present condition of

affairs, but who, we fear, are too much influenced by a false esprit de corps to actively engage in reform that is opposed by the majority. We hope, however, that the agitation will not cease until American psychiatry is cleared of the discredit it at present deserves.

OVARIOTOMY of late has been deprived of most of its dangers. Thomas Keith cures ninety-seven per cent. of his patients. Mr. Spencer Wells, and his two successors at the Samaritan Hospital, Messrs. Bantock and Thornton, have also been showing remarkable results. The brilliant exploit of Keith in curing seventy-three patients in succession has given rise to much conjecture respecting the secrets of this man's wonderful success. Dr. Marion Sims, in the *American Journal of Obstetrics*, April, 1880, attempts to show that this success is mainly due to the great care of the operator in thoroughly cleansing the peritoneal cavity of all blood, in ligating every bleeding point, however small, and in controlling hemorrhage from all oozing surfaces, regardless of the time consumed, before closing the peritoneal cavity. Another chief peculiarity of Keith's operation is his method of treating the pedicle by the actual cautery, instead of by the ligature or clamp. Keith began the use of Lister's method in March, 1877, and has since increased his percentage of recoveries from between eighty-six and ninety per cent. to ninety-seven. Other operators had, in the use of this method, only reached a percentage of about seventy-five to eighty, save in exceptional cases, and in no case had the statistics of any other operator been comparable to Keith's. Keith's results must, therefore, have depended upon something besides Listerism, since, without this, he had obtained results which others have scarcely attained with seemingly the most scrupulous antiseptic precautions. An analysis, however, of Dr. Sims' useful communication will show that Keith has, from the very first, employed antiseptic precautions which have been neglected by other operators, precautions which are probably more important than those which generally pass under the name of Listerism, i. e., protection against sepsis by cleansing of the peritoneal cavity and by ligation of all vessels.

THE CLAMP AND THE DRAINAGE TUBE IN OVARIOTOMY.—Listerism, says Dr. Sims, "has killed the clamp." Spencer Wells, who has given to this instrument its popularity, has almost abandoned its use. He employs the intra-peritoneal ligature, cuts off the ligature closely, and leaves the pedicle in the peritoneal cavity. Proper precautions against the exudation of blood or bloody serum within the abdominal cavity after ovariectomy now appear to be

of much greater importance than any particular method of treating the pedicle. The important question of drainage is one which Keith in a letter to Dr. Sims (*American Journal of Obstetrics*, April, 1880,) answers as follows: "I can hardly give you any rule about drainage, except that I do it where I expect much serous oozing or where I am not sure that all bleeding has been stopped, and, especially if, with one or the other of these circumstances, the general condition is bad or the patient very feeble." Dr. Sims has adopted a plan, to settle the question of drainage or no drainage. He believes that bloody serum in the peritoneal cavity is more dangerous than pure blood or pure serum. The presence of adhesions and of ascites together therefore calls for the drainage tube. In adhesions without ascites be sure that every bleeding point has been secured, then close the wound without the drainage tube. In order to be certain of the bleeding points, place a large flat sponge between the anterior parietes and the intestines. Pass another smaller sponge, firmly held with locked forceps, to the bottom of Douglas's pouch, the handle of the forceps projecting from the lower angle of the incision. Then introduce the sutures. Then, with the loose sutures separated, half towards each angle of the wound, remove the two sponges, and if they be perfectly dry, the wound may be closed without fear of hemorrhage. If either sponge contain blood, the oozing should be sought out and arrested, if possible. If impossible, the drainage tube should be employed. Dr. Sims has acted according to this plan only on two occasions, but has, in both instances, had good reason to believe the rule a wise one.

TREATMENT OF FACIAL NEURALGIA.—A critical synopsis of the results of the various methods of treatment of facial neuralgia is given in Schmidt's *Jahrbücher*, B. 184, No. 10, 1879, page 48, by Dr. Deahna, of Stuttgart. A thorough historical and critical investigation of all the recorded cases gives rise to the following results: I. Excision of a piece of the nerve was performed in 232 cases, with a mortality of 3 per cent. and only 3.05 per cent. of permanent cures. II. Ligature of the carotid artery, 9 cases on record, with 5.2 per cent. mortality, sometimes grave brain symptoms, and 10.2 per cent. of permanent recoveries. III. Under electrical treatment the 73 cases on record give 45 per cent. of permanent relief. IV. Nerve stretching has only been employed in a limited number of cases, but with invariable, immediate and lasting good effect. Consequently, the latter method should be resorted to when treatment by electricity has been tried without success.

NEW TREATMENT OF PSEUDARTHROSIS.—A new treatment for the cure of pseudarthrosis is proposed by Dr. Becker in Schmidt's Jahrbücher, B. 185, No. 1, 1880, page 50. In less severe cases, he proposes to try the following method, before resorting to graver operations: He injects a solution of carbolic acid into the interposed ligamentous substance connecting the fractured ends of the bones. The case in which he successfully applied this treatment, was the following: A young man had a compound fracture of the tibia at the lower end of the upper third. After three months, notwithstanding rational treatment, no union had taken place. He then applied a fenestrated plaster of Paris bandage over the fractured limb and through the fenestræ, injected two to three hypodermic syringes full of three per cent. solution of carbolic acid, into the as yet soft callus. As this solution caused no reaction, he increased its strength to five and finally to six per cent. This was injected every three to five days. After the injection of the six per cent. solution, œdema, redness of the skin and tenderness over the fracture became noticeable. After nineteen days he ceased the injections, and, a week later, by removal of the plaster of Paris bandage, he found that a firm callus was uniting the fractured bones. A new plaster of Paris bandage was applied and worn for eight days, after which the patient was able to walk around with a cane. From this time he made a speedy recovery.

ARTIFICIAL RESPIRATION IN ASPHYXIA.—A recent communication to the Academy of Sciences, Paris, by Baron Larrey is instructive, as showing that, in cases of apparent death from asphyxia, energetic measures commenced some time after the last manifestations of life will sometimes restore vitality. He narrated two observations, one from his own experience and another on the authority of Dr. Fournol, of Billancourt (Seine). The first was that of a child three years old, suffering from pulmonary congestion following measles. It was pronounced dead at six in the evening and laid out in the usual manner before burial. At half past nine he went to see the corpse; it was white as the cloth on which it was laid and cold as marble. Without knowing exactly what put the idea in his head, he became possessed with the thought that the child was not dead, and following out what was in all appearance an unreasonable impulse, he set to work applying artificial respiration. He continued in this apparently hopeless task for four hours, when he perceived a faint blush of color extending itself on the cheek. At two o'clock in the morning the child began to breathe spontaneously and called "mamma." From

this on its recovery was rapid. The second case is less remarkable, it was that of a fisherman who fell into the water and was taken out asphyxiated after twelve minutes immersion. The doctor was called and arrived after the man had been apparently dead nearly an hour. Artificial respiration was commenced an hour after the accident, and continued four hours before signs of life appeared, but the recovery was finally complete. Baron Larrey concludes from these and analogous facts that in all cases of apparent death from asphyxia artificial respiration should be resorted to and kept up for an indefinite number of hours, how many is not yet certain. He promises in a future communication to discuss this matter more fully, and to try to point out the indications and ascertain the period of time during which artificial respiration should be continued, basing his research on the conditions of the blood, the state of the nervous system and the condition of the cardiac musculature. It is not probable that persons ever spontaneously revive from the state of suspended animation induced by asphyxia or drowning, but there is, in the light of such facts as those given above, very little doubt that, for the lack of adequate measures, many persons have been allowed to die, and, perhaps, in some cases persons have been buried before their resuscitation was impossible.

ACTION OF VARIOUS DIURETICS.—Dr. Maurel, of the French Marine, completes in the Bulletin General de Therapeutique, March 30, a paper on the action of various diuretics, based on clinical experiments. The substances tested were the nitrate, chlorate, acetate and iodide of potash, salicylate of soda, digitalis, colchicum and squills. The following is his summary of his results;

I. Nitrate of potash, uncertain as regards increase of quantity of the liquid, notably augments the solid constituents of the urine. The most active quantity seems to me to vary from four to six gram. (taken during a period of time, not, of course, in one dose. ED.)

II. The chlorate, less active than the nitrate of potash in increasing the solid constituents, has an effect on the quantity of the urine, which it augments in a sensible degree.

III. The acetate of potash is doubly uncertain, both as regards the quantity and the solid constituents.

IV. The iodide of potash, instead of being diuretic, seems to decrease the urinary secretion.

V. Salicylate of soda, uncertain as to its effects on the quantity, increases the solid matters of the urine.

VI. Of the three vegetable substances tested, only digitalis is really diuretic. It increases at the same time the solids and the liquids of the urine.

VII. Tincture of colchicum is almost inactive upon the urinary secretion.

VIII. The same is the case with tincture of squills and the oxymel of squills, which have afforded a great variety of results.

Of these the nitrate of potash is by far the most effectual in increasing the solids of the urine, its figure in this respect rising as high as one-tenth of the whole, while none of the others exceed one-twentieth or one-thirtieth. Only digitalis can be relied on in the author's opinion to increase the quantity of liquid, all the others showing great variations in this respect. These experiments were performed on convalescent or healthy individuals. Of course, it cannot be said positively that they were in the same condition as regards the effects of medicine as the sick, but the difference is altogether an unknown quantity.

ILLINOIS STATE MEDICAL SOCIETY.—We are informed by Dr. N. S. Davis, Secretary, that the next regular annual meeting of this Society will be held in Belleville, Ill., commencing at 10 o'clock A. M. of the third Tuesday (18th) of May. The local committee of arrangements are making all needed preparations for a good meeting, and it is hoped that the profession in every part of the State will be well represented by delegates. Standing committees are expected to report on practical medicine, surgery, obstetrics, gynecology, ophthalmology, drugs and medicines; and special committees on croup, diseases of children, pelvic cellulitis, pneumonia, antiseptic surgery, abnormal thermal conditions in diseases and the means of controlling them.

CALOMEL.—In the March 30 issue of the *Bulletin de Therapeutique*, M. Verne, pharmacist, takes up the question of the alteration of calomel when combined with sugar, and especially its change into the bi-chloride, with the consequent therapeutic dangers. He finds from two series of experiments with mixtures of chloride of sodium, citric acid, cane and beet sugar with calomel, that these alterations are almost nil and the asserted dangers consequently fictitious. He is inclined to refer the accidents that have been reported, to other causes, such as an unequal distribution of the drug in the mixture, etc. The commonly assumed danger of acid drinks taken when using calomel is also a pure prejudice, since calomel in solution with citric acid for fifteen days underwent no change. Moreover, the free chlorhydric acid of the gastric juice would naturally be much more dangerous, as it is stronger.

The protochloride of mercury is, according to M. Verne, a much more stable salt than is generally supposed, and he considers the bi-chloride much more likely to be reduced to calomel than is the latter to change to the bi-chloride. In support of this he quotes from Wurtz, who says that very many agents, especially under the action of light, reduce the bi-chloride to the proto-chloride, and even to metallic mercury.

M. Verne's theory is that non-coagulated albumen, at the temperature of the human body, is the reductive agent of calomel par excellence; that it transforms it into the protoxide to form with the latter a nearly insoluble albuminate. He also affirms from his experiments, in opposition to some others, that chloride of sodium, either alone or combined with albumen, at a temperature of 40° Centigrade, has no action whatever on calomel.

PUERPERAL MALARIAL FEVER.—Dr. Fordyce Barker, in the *American Journal of Obstetrics*, April, 1880, describes this form of puerperal fever under the following diagnostic signs: In the onset the most prominent symptoms are chills, sometimes very slight, temperatures one or two degrees higher than in the beginning of any other puerperal disease. The pulse is rapid and the prostration is greater than is usual with diseases of this period. The second day marks a remission. In two or three days the attack recurs. This form of malarial fever may be developed at any period following parturition, until the physiological changes of puerperal convalescence are completed. The large majority of cases are characterized during three or four days before the explosion by general malaise, pain in the head, back and bones, insomnia, thirst, loss of appetite. The differential diagnosis between this and septicæmia depends upon the occurrence or non-occurrence of a fall of temperature of three or four degrees, and a corresponding decline of other symptoms, and upon the fact that septicæmia is rarely accompanied by pain of the head, back or limbs, but is characterized rather by acuteness than bluntness of the sensibilities. Puerperal fever generally occurs between the first and third days after delivery, and is not marked by recurrent chills or by remissions. It may be confounded with phlebitis. The treatment is that of malarial fever.

SEVEN medical students have died of diphtheria contracted in the Hospital des Enfants-Malades, Paris, during the past year. The naked fact is, at once, sufficient eulogy upon the devotion of the young gentlemen, and a mournful commentary upon the hygienic management of the institution.

OBSTINATE PRIAPISM.—The Practitioner, April, 1880, contains an abstract of a paper by Dr. Salzer, of Worms, in which he has described the case of a patient, 46 years of age, who presented this condition constantly for seven weeks. The condition was accompanied by severe pain. Leeches, warm applications, hydrate of chloral and chloroform inhalations gave no relief. At the end of the seven weeks the erection gradually subsided. The patient became weak and cachectic and died in a year, having an immensely enlarged spleen, due to a previous attack of intermittent fever. An autopsy was refused. The author reports briefly eight similar cases, from which it may be inferred that priapism is one of the symptoms of leukæmia. Kremme believes that this effusion of blood into the corpora cavernosa may remain constant for a considerable time on account of impeded venous circulation. Longuet regards the physico-chemical condition of the blood in leukæmic patients as the cause, and believes that, owing to the increased number of white blood corpuscles, the circulation in the smaller vessels is impeded and thrombi are formed. Neidhart and Matthais say that the difficulty originates in some disturbance of the nerve centers. Dr. Salzer rejects the theory of extravasation of blood and favors the theory of disturbance in the nerve centers. He supposes that the attack may be due to over stimulation of the nervi-erigentes, brought about either by structural changes in the nerves themselves or by pressure upon them by the enlarged lumbar glands.

THE PHYSIOLOGICAL ACTION OF IODOFORM.—Högyes (Archiv für Experimentelle Pathologie, vol. 10) details certain experiments on animals with iodoform. From his experiments he agrees with Binz that poisonous doses of the drug are followed by fatty degeneration of the heart, liver and kidneys by general paralysis and by death. On dogs and cats it is a narcotic, but not on rabbits and frogs. The blood of animals narcotized by this substance is free from the odor of iodoform. This author, Högyes, believes that iodoform introduced into the system gives up free iodine, which combines with albumen, and that, in its general effects, iodoform poisoning is identical with that of iodine poisoning.

THE CINCHONA CURE FOR DRUNKENNESS.—The important paper of Dr. Earle published in the Chicago Medical Journal and Examiner, February, 1880, shows that, by chemical examination, the D'Unger preparation contains from two to twenty-five per cent. of absolute alcohol, a small amount of bitter principle (probably cinchona) and that the remainder is water.

SUGAR IN THE BLOOD.—Beile in the (Arch. f. Anat. and Physiol.) gives the results of his work in the determination of the amount of sugar in the blood. The blood or serum employed is previously freed from albumen by boiling. The small quantity of peptone in the filtrate does not interfere with the estimation of the sugar. The method of Sachsse, viz., titration with iodide of silver solution, was the one employed. If the blood, after it is taken, is allowed to remain quiet at the ordinary temperature of a room, its sugar content remains unchanged for a long time. Violent shaking, however, tends to diminish the percentage of sugar. This percentage diminished after three hours' continuous shaking from .197 to .170. By comparative operations on the blood, and the serum belonging to it, Beile sought to determine whether it were true, as asserted by Merling, that the blood corpuscles are free of sugar. The author did not obtain a definite answer to this question, but the probability is that in general the sugar is confined to the serum, although in some cases it appeared to be also in the blood corpuscles. Further experiments sought to determine the influence of absorption from the alimentary canal upon the sugar content of the blood.

Feeding an animal with dextrin or cane sugar effects a marked increase in the sugar in the blood, but not at all proportional to the amount of sugar absorbed. The percentage of sugar in the serum of blood from the carotid artery rose after such alimentation from .170 to .384. Comparative analyses on the blood of the same animal, taken from the carotid and portal arteries, show a higher percentage of sugar in the latter. From this it follows that within the arterial system are conditions which favor the rapid disintegration of sugar. Finally, experiments were made on the blood of arteries and veins of the liver, and the sugar content of the latter found to be higher. The liver, therefore, does not diminish the amount of sugar in the blood passing through it.

BI-SULPHIDE OF CARBON.—It may not be generally known that bi-sulphide of carbon is a poison. It is fortunately a substance which is not often given intentionally, and would only be taken by mistake by one who had suffered serious injury from catarrh. Bi-sulphide of carbon, however, unites under certain conditions with alcohol, and forms an acid called xanthogenic. This acid, by heat or in the organism, may be decomposed into alcohol and carbon disulphide. Lewin (loc. cit.) has observed toxic symptoms to follow the hypodermic injection of xanthogenic acid in dogs and rabbits. The cause of death in these cases was suffocation in conse-

quence of direct paralysis of the respiratory centers. The carbon disulphide acts in every case as such without being decomposed into hydrosulphuric acid (sulphuretted hydrogen) and formic acid. The xanthogenates of sodium and potassium, either in the stomach or hypodermically, cause diarrhœa in rabbits and in animals capable of it, in doses of one gramme and over, emesis without other noticeable pathological phenomena. When these salts (e. g. the potassium salt) are brought into the stomach they are decomposed gradually by the free acid of the stomach into potassium chloride and free xanthogenic acid, the latter soon falling apart into alcohol and carbon disulphide. These salts are especially preservatives and disinfectants, and can replace the carbon disulphide, which is not suitable for medical purposes.

THE ACTION OF GLYCERINE in the system and the chemical changes which it undergoes, have long been a subject of dispute among physiological chemists. One reason of this difference of opinion is the great difficulty of detecting small quantities of this substance, especially in large quantities of organic matter. So great is this difficulty that prizes of considerable magnitude have been offered in Germany for a reliable process which would detect one-half of one per cent. of this substance in beer. Some experiments looking toward the solution of the disputed points have lately been made by Munk (*Virchow's Arch.*). Experiments on dogs showed that glycerine can not, like cane sugar, protect the albumen of the system from decomposition. Neither is it, according to the usual definition, a food. It appears to be completely decomposed in the organism; at least only mere traces of it are found in the urine. A formation of glycerine—phosphoric acid or glycerine—sulphuric acid does not take place.

THE ANATOMY AND PATHOLOGY OF TWO IMPORTANT GLANDS OF THE FEMALE URETHRA is the subject of a paper by Dr. A. J. C. Skene in the *American Journal of Obstetrics*, April, 1880. Dr. Skene describes two tubules large enough to admit a No. 1 probe of the French scale, situated one upon each side, near the floor of the female urethra. They extend from the meatus urinarius upward from three-eighths to three-fourths of an inch. These tubules are parallel with the long axis of the urethra and are located in its muscular wall beneath the mucous membrane. Their mouths are upon the free surface of the membrane, just within the meatus urinarius. The upper ends of the tubules, as shown in specimens prepared by Dr. B.F. Westbrook, terminate in a number of divisions which branch off into the muscular walls of the urethra. When Dr.

Skene first discovered these glands he regarded them as mucous follicles that were accidentally of unusual size, but investigation in over one hundred subjects shows them to be constantly present, of uniform size and location.

Nothing is known of the physiology of these glands. Their pathology, however, is of great practical interest. They are subject to inflammation of varying intensity. In the milder forms of inflammations the mouths of the ducts are enlarged and surrounded by a very narrow bright red areola, and by pressure upon the urethra from behind forward they discharge a white serous fluid, but this condition gives very little trouble, and would readily escape notice. The most important pathological condition yet observed is a purulent and continuous inflammation, involving the surrounding tissues. The mouths of the ducts thus inflamed are usually seen externally, and present very small ulcers of a yellowish gray color. The mucous membrane of the meatus is thickened and of a deep red color, and has the general appearance of caruncle or papilloma. The lower third of the urethra is very tender, and is a source of great discomfort, which, as a rule, is not increased by urination. The absence of dysuria distinguishes this condition from urethritis and caruncle. In inflammation of the glands their mouths may be distinctly seen. In caruncle of the urethra the diseased tissue is generally limited to the lower border of the meatus between the orifices of the tubules. A simple caruncle, if removed or destroyed, rarely returns. The vascular growths about the mouths of the diseased tubules, if removed one or more times, continue to return until the inflammation of the glands is cured. Dr. Skene regards this as explanatory of the usual statement that caruncle is liable to return. In the cases observed by Dr. Skene, he believes the inflammation to have been caused by gonorrhœa, which persisted in the glands long after the original trace of the disease had disappeared. His treatment has been injection with the tincture of iodine and the passage of a probe coated with nitrate of silver along the entire depth of the tubules and the injection of nitrate of silver dissolved in water by means of a hypodermic syringe with a probe-pointed needle. Sometimes these cases are very obstinate and the symptoms do not fully disappear after treatment, and as soon as treatment is suspended the inflammation returns.

Dr. Skene says that in an obstinate case he would lay the duct open by dividing it from within outwards, i. e., divide the urethral wall from the ducts into the vagina and keep the wound open until it heals from below outwards. He would treat it as a fistula in ano.

A NEW OPERATIVE METHOD FOR THE TREATMENT OF INCIPIENT PYÆMIA, is advocated by H. Krauscold, of Frankfort-on-the-Main, in Schmidt's Jahrbücher, B. 184, No. 12, 1879, page 266. Although the introduction of the antiseptic method has made the occurrence of pyæmia very rare, still a number of cases are to be met with. In a majority of these cases, the pyæmic poison goes into the circulation from a poisoned venous thrombus. Billroth and Neudörfer have succeeded in arresting pyæmia in cases where the pyæmic chills had already commenced, by secondary amputation. The cases, however, in which this can be employed are rare, and the remedy itself, dangerous. A less dangerous remedy, but one still more rarely resorted to, is the ligation of the vein between the thrombus and the heart, in order to cut off the septic thrombus from the circulation. Even this method is uncertain, on account of the numerous anastomoses between the superficial and deep seated veins. The author therefore proposes, and has in one case successfully employed the method of extirpating the part of the vein in which the pyæmic thrombus was created. The case was the following: The patient was twenty-nine years of age. On account of traumatic aneurism of the posterior tibial artery, the leg was amputated above the knee joint with the formation of an anterior flap. Forty-eight hours later, a secondary hemorrhage from the femoral artery set in, and was repeated twice in the succeeding twenty-four hours. For some unexplained reason the antiseptic dressing was now removed and open wound treatment resorted to. Forty-eight hours afterward a severe chill occurred, followed by a rise of temperature to 41.5 (106.7 Fahr.). The cause of this pyæmia was supposed to be thrombosis in the femoral vein, which had been exposed by the successive ligations of the femoral artery, necessitated by the continued hemorrhages.

The following method of operation was now resorted to: The peripheral end of the femoral vein, included in the last arterial ligature, was laid open. The author succeeded in extricating from the lumen of the vein, a coagulum, which decreased in size towards its upper end. After its removal, a grayish, discolored, decomposed fluid could be expelled by pressure upon the upper part of the vein. The femoral vein was then laid open below Poupart's ligament. The vein contained no thrombus, as the wall of the vein at this point appeared healthy. A double catgut ligature was then applied round the vein and a portion between the ligatures two to three centimetres in length extirpated. To prevent secondary hemorrhage, the femoral artery was ligated in the same wound. The operation was performed

under strict antiseptic precautions. The temperature, immediately after the operation, went down to 37.5 (99.5 Fahr.) The wound of the ligatures remained thoroughly aseptic and healed in about three weeks. Notwithstanding the open treatment, the amputation wound became covered with fresh granulations a few days after the ligation and healed in six to eight weeks. After the ligation, the temperature remained normal with the exception of two nights, when it rose to 31.2 (102.56 Fahr.) No further manifestations of pyæmia occurred.

The author then makes the following comments: After Virchow's investigations in regard to thrombosis in the veins, Lee was the first who resorted to ligation of the cephalic vein in cases of traumatic lesions of the hand with incipient pyæmia. This operation he performed twice with success. Subsequently the operation was successfully performed in one case by Rigand, a French surgeon, who ligated the vena saphena, and unsuccessfully twice by Petit. The antiseptic method now permits us to operate more freely on the veins than formerly, and consequently the author has dared to resort to extirpation of a part of the vein. He considers a single catgut ligature not sufficient because the inflammation in the wall of the vein, the phlebitis subsequent to the thrombosis might easily pass over a single ligature and thus nullify the effect of the ligation. It is certainly not in every case of pyæmia that the diagnosis of the source can be made with sufficient precision to indicate the exact place for operative interference. But, if the operation is possible, it cannot be performed too early. The author recommends that the vein be opened and its contents carefully examined. As a matter of course, this method is only to be resorted to in extremities. It may be of some especial practical value in the pyæmia following amputations, because it is only in such cases that an accurate diagnosis of the position of the thrombus can be made.

THE MUTUAL ANTAGONISM OF POISONS has lately been maintained by various observers, especially Heidenhain and Luchsinger. A long article by Rossbach now appears in Pflüger's Archives (Vol. 21, H 1 and 2, page 1) in which he contradicts these statements and insists upon the following laws:

There exists no true mutual antagonism between any two poisons. The stimulation of certain structures caused by one substance may be overcome by the paralyzing effect of another, but not vice versa. A mutual antagonism, however, may be simulated when a paralyzing agent affects (in small dose) only the nerve terminations in the organs, leaving intact the gland cells or muscle fibers. Under these cir-

cumstances the exciting agent may still act upon these latter structures.

Luchsinger has recently published the following experiment: By an injection of .001 to .003 of atropine, the sweat nerves of a kitten are paralyzed, but on injecting now .01 of pilocarpine directly into one paw, the secretion returns again on that side. On the basis of his own experiments, Rossbach explains this result in the following manner: The small dose of atropine employed paralyzed merely the sweat nerves, but not the sweat glands; these may still be stimulated by pilocarpine, but the latter agent does not at all restore the action of the paralyzed nerves. A dose of .02 to .03, however, of atropine paralyzes the gland cells themselves, and this paralysis cannot be overcome by any quantity of pilocarpine, no matter how large.

Somewhat similar statements are made by Heidenhain in reference to the action of physostigmine and atropine upon the sub-maxillary glands. The latter agent, introduced into the blood, paralyzes the action of the chorda tympani upon the secretion, but an injection of physostigmine into the gland restores again the secretion. This is true, but applies only to small quantities of atropine, less than .01 to .03 per 1,000, bodily weight. The agent in larger doses paralyzes not only the nerve, but also the gland itself, and this effect is not counteracted by physostigmine. The latter agent cannot, indeed, restore the action of the chorda destroyed by atropine, and if the atropine has affected the gland itself, as it does in larger quantity, the stimulating agent ceases to act altogether.

CHRONIC ATROPINE POISONING.—But little experimental work has yet been done with reference to the continued action of poisons. An article like the one by Dr. B. von Anrep (*Pflüger's Archiv.*, Vol. 21, H. 5 and 6, page 185) covers hence a new ground. The author has observed dogs during the course of four or six weeks, who have received daily various doses of atropine. The action of a single small dose (.001 to .003) is not very marked. Apart from the action upon the sweat and pupils there occurs a transitory dryness of the mouth, sometimes a slight anesthesia of the skin, in other cases increased sensibility and faint tremors, but the animal is as lively as ever. The pupil regains its size in some hours, while the pulse becomes normal in twenty-five to sixty minutes.

After some five to ten injections, the changes in sensibility and tremors are no longer witnessed. The pulse is not as much affected as the first time; it remains permanently slackened. Within eight or ten days the animal accustomed to atropine

shows a pulse of about 100 beats per minute, its normal pulse having been 132 to 150. This weakness of the heart may continue for weeks, the pulse returning to its normal point some days only after the subcutaneous injections are no longer made. The salivary secretion continues unchanged. The general health of the animals does not suffer.

Larger doses, .05 to 1.0, cause violent symptoms of poisoning. The animals appear dejected, are unsteady in their gait, and howl. There appear tremors and twitchings, especially of the hind legs, thirst, dryness of the mouth, frequent vomiting. After these symptoms have disappeared there remains for some time prostration and loss of appetite. The action on the pulse is neither greater nor more persistent than from a smaller dose. The dilatation of the pupil, however, continues somewhat longer.

If these large doses are repeated, some six or ten times, once a day, the violence of the symptoms abates. With the exception of the widening of the pupil, acceleration of the pulse and stoppage of salivation, the other symptoms cease altogether. The heart is affected in the same manner as from smaller doses. The pulse is slackened altogether, each fresh dose causing but a slight increase in frequency. Neither the reaction of the pupils nor of the salivary glands is altered.

It must, hence, be supposed that some organs have become accustomed to the poison, so that its first action is no longer produced, but this habituation is limited, since the long-continued use of very large quantities (1.0) of atropine produces finally symptoms of general poisoning of a different nature from the acute poisoning first noticed. The animal becomes more apathetic, loses its liveliness and appetite, and appears stupid and sleepy, occasionally vomiting occurs. Death, however, is caused only by the starvation resulting from the want of appetite. The animal is able after a time to tolerate doses which would be fatal to one unaccustomed. All symptoms are transitory. Complete recovery is possible after ceasing the use of the drug.

DOMESTIC ENEMA.—We are informed by Gailard's Medical Journal that the Zulus have a way of their own of cleansing the gastro-intestinal canal, by producing emesis. They place the patient on his head, and, introducing the small end of a cow's horn into his rectum, pour a quart of sea water through it into the recesses of his body. This is what our Illinois State Board of Health would call a "domestic enema." It has the charm of simplicity and the merit of thoroughness, but it is liable to the objection of leaving a bad taste in the mouth.

KEITH'S OPERATION OF OVARIOTOMY is characterized by system. His spray apparatus works with three jets and for six hours. The danger of producing peritonitis by too powerful an application of carbolic acid common to the operation as generally performed, is obviated by placing the instrument to the left of the patient's head at a distance of from eight to nine feet from the operator. The sponges to be used have been thoroughly washed and then soaked for ten hours in a solution of washing soda. Previously to operation they have been soaked in a five per cent. solution of carbolic acid. Just before operation they are wrung out of a hot carbolized solution and put in a tightly covered tin pail, and placed near the fire to be kept warm until used. His anæsthetic is always ether. His operation is scrupulously Listerian. His usual time of operation is about eleven o'clock in the morning. The patient is allowed only a little tea and toast about three hours before. Little or no preparatory treatment is employed. Unlike Spencer Wells, Mr. Keith does not exclude spectators on account of their previous attendance upon contagious or infectious disease. He relies upon antisepsis for protection against all infection, not even fearing infection from puerperal fever. The idea that Keith is a slow operator is false. His operation consumes much time, but the time is employed in scrupulous attention to minute details, and in waiting until all danger from hemorrhage has certainly been obviated. His manipulation, in itself, is rapid. After removal of the tumor, he removes all blood and serum with sponges and then begins to hunt for little bleeding points, tying one after another wherever the least amount of oozing is found. Then the whole pelvic cavity is again sponged out, and the search for oozing vessels is continued. He ligates point after point of seemingly unimportant oozing. He explores and re-explores, and, as Dr. Sims says, you wonder why he does not at once finish the operation, when suddenly he seizes a point, moistened with fresh blood, and throws a ligature around it. And so he continues until certain that no point has been left unsecured, from which bleeding, after reaction, could possibly occur. In closing the external wound, he first introduces a broad flat sponge, after the plan of Spencer Wells, between the exposed intestines and the abdominal parietes. This protects the intestines against cold and prevents the passage of blood from the needle punctures into the peritoneal cavity. Then, according to the method of Spencer Wells, he passes two sutures at the upper angle of the wound, and two at the lower, each suture having a needle at either end, and each needle passed from within the peritoneal membrane out through

the skin. The intervening sutures are passed with a Peaslee's needle. The sutures enter the abdominal wall about a third of an inch from the wound, and are passed entirely through the wall, including the peritoneal membrane. If, upon the removal, the sponge is bloody, the search for bleeding points is continued. If dry, the wound is closed, but not until the operator has satisfied himself, by thrusting a small sponge, held by locked forceps, to the bottom of Douglas's cul-de-sac, that the pelvic cavity is dry. He uses carbolized silk sutures with intermediate surface sutures of horse hair. Both Keith and Spencer Wells have abandoned the after treatment of large doses of morphine, and now employ it only as indicated by pain. Keith allows the patient no nourishment during the first forty-eight hours. He gives iced brandy in moderate quantities, and at the end of this time, light nourishment. The bowels are moved by enema at the end of a day or two, and, unless contra-indicated, a more nutritious diet.

ANOTHER DEATH FROM CHLOROFORM.—Another example of the fatal operation of chloroform vapor occurred in the practice of one of our physicians on the 24th ultimo. The patient was a robust young laborer of twenty, and the operation was necessitated by a lacerated wound of the thumb inflicted by a circular saw. Ether was administered at first, "but it had no effect." Chloroform was then administered. It was given at the request of the physician by one of the patient's friends and fellow workmen. Death occurred while the physician was getting his instruments ready for the operation. It was, strange to say, sudden and unexpected. In this relation we beg permission to withdraw a suggestion we made a few weeks ago. It was called forth by a fatal case of chloroform poisoning which occurred in the Eclectic College of this city, at the hands of the professors in that institution. The dangerous vapor was administered with unusual care by a gentleman of unusual experience. At the time we referred to the fact that chloroform was particularly apt to produce untoward effects when administered by persons of exceptional skill and good judgment. We suggested the idea that inexperienced laborers might be more fortunate. We now withdraw the suggestion.

PANCREAS VOIDED DURING LIFE.—At a recent meeting of the Vienna Gesellschaft der Aerzte, Dr. Chiari exhibited a large portion of pancreas which had been voided by the bowels during life. The patient, a man of thirty-eight, had, for six weeks before, exhibited aggravated symptoms of intestinal obstruction. Complete recovery ensued. A similar case was reported in 1864 by Rokitsansky.

INDISCRIMINATE USE OF CARBOLIC ACID.—With due regard for the opinions of the more progressive and aggressive members of the profession, we respectfully direct attention to some of the dangers which attend the indiscriminate use of carbolic acid in the form of spray, as an application to extensive raw surfaces and as an injection into abscess cavities. In the fervor of their devotion to the teachings of Lister, physicians are apt to lose sight of the fact, and sometimes do lose sight of it, that carbolic acid, in undue concentrations and amount, may operate with fatal energy as a local irritant, and may even destroy life through its constitutional influence. The small atomizers so extensively used in former years are rapidly being displaced by instruments that produce a heavier cloud of vapor. These larger apparatuses are now employed with the almost inevitable concomitant of carbolic acid, not only as a safeguard against the contact of living aerial germs with fresh wounds, and their introduction into abscess, joint and peritoneal cavities, but they are used also in the treatment of diphtheria and other infectious diseases. This is the "modern" plan. Still, we have no hesitation in saying that the antiseptic, used in this hazardous fashion, is sometimes the immediate cause of death. It is not uncommon in cases of diphtheria and the anginous variety of scarlatina to find the atomizer at play in a small super-heated room with the stream of carbolized vapor aimed directly at the face of the child. Examples of this sort have occurred under our observation several times, and in two instances we have witnessed unmistakable symptoms of carbolic acid poisoning. To say the least, the dangers of urinary suppression are not lessened by this practice, and the chances of ultimate recovery are not increased. In two instances of diphtheria in very young subjects we have found the atmosphere so strongly impregnated with the acid as to make it impossible for the adults in attendance to remain in the room longer than a few minutes at a time. In another case of diphtheria we found chlorate of potassium to have been used with such a degree of thoroughness with the atomizer that every article of furniture in the room was covered with minute crystals of the salt. And physicians—modern physicians—rejoice in the success that attends this line of practice! But this is not all. The surgical uses of the spray are no more free from danger than the medical uses referred to. A case has recently occurred within the scope of our knowledge wherein one of our most distinguished gynecologists appeared to overdo the matter of antiseptic precaution. The case was one of ovariectomy. The room was duly prepared for the patient by thorough ventila-

tion and impregnation of the atmosphere with the great protective. Proper attention was paid to temperature, and Peaslee's artificial serum was prepared with care. Everything and everybody was disinfected. The patient was now anæsthetized, and two atomizers—the largest size, gotten for the purpose—were set at play, the streams of vapor meeting and making a dense cloud over the bloody chasm in the patient's abdomen. The vapor was so irritating that three of the attendants and the operator himself, exhibited a day or two later various degrees of cutaneous inflammation. The gentleman who administered the anæsthetic had an eczematous eruption on his hands which remained nearly two weeks.

The patient died with symptoms of peritonitis, and the result was ascribed, we are informed, to the insalubrity of the hospital (not the County Hospital) in which the operation was performed. Again, the introduction of solution of carbolic acid into cavities and their application to wounds has in several instances been known to occasion alarming and even fatal effects. This is well known in relation to the carbolic acid treatment of hemorrhoids. It is getting to be equally well known in relation to injection in other parts of the body. A case in point: A patient was under our treatment for rectal ulceration. The ulcers had been cauterized with nitric acid, and a cotton tampon that had been introduced remained in situ about twelve hours. The following day the tampon was removed and a one per cent. solution of carbolic acid was thrown into the bowel. Profound shock followed the injection almost immediately, and we supposed that rupture of a thinned portion of the rectal wall had occurred, and that the fluid had passed into the peritoneal cavity. The breathing was very feeble and slow, and the wrist of the patient was pulseless. Hypodermic injections of brandy were administered and the patient ultimately recovered.

Several examples of this general character are on record. The Medical Times for March (extract from *Wien Med. Wochens.*) refers to three, of which one was fatal. The acid had only come in contact with the skin. In the fatal case the poison was discovered in the urine. None had been swallowed. At a meeting of the New York Clinical Society, January 23, 1880, Dr. Smith described a case of poisoning which resulted from the injection of a one to thirty solution into a large abscess cavity above the knee joint. The symptoms were those of shock, faintness, pulselessness, dilated pupils, and vomiting. Subsequently pain occurred over the lower part of the back, which was attended with temporary arrest of urinary secretion. When secretion was restored—

for recovery ensued—the urine was found to be very dark. At the same meeting Dr. Peabody referred to three cases of a similar nature. One consisted of the accidental contact of the strong acid with the skin, and the production of extensive inflammation and corrosion. The urine was very dark. Death occurred within a week. At the autopsy intense nephritis was found. The other cases related by Dr. Peabody resulted from the use of a one to twenty solution with the atomizer. The symptoms were those of collapse, but recovery finally ensued. In addition to these cases of poisoning, Sonnenberg reports six others as having occurred, mostly in young subjects, at Luecke's Clinic, at Strassburg. The record, together with experimental observations on lower animals, shows plainly the danger of introducing acid into large cavities. The case of Dr. Katzenbach is one in point: He had just aspirated a hepatic abscess. Immediately after he injected through the aspirator needle a quantity of the aqueous solution of the acid into the cavity. Such a degree of shock was developed that it necessitated the free use of stimulants, and the maintenance of artificial respiration for over an hour. Many other examples of this general nature might be cited, but we have already said enough to show that the antiseptic uses of carbolic acid are fraught with danger.

SLIGHT LACERATION OF THE PERINEUM.—Under this title, Dr. G. H. Lyman, in a paper published in the Boston Medical and Surgical Journal for January, gives his views of the importance of this accident of parturition. After speaking of the office which the perineal body fills in supporting the organs of the pelvis, the writer says that not one single line of this support can be removed without injurious results. He has never seen union by first intention of perineal laceration, no matter how slight it may be. Slight lacerations do sometimes close up by the slow process of granulation; but a certain amount of cicatrization results, and this very cicatrix is the seat of much subsequent discomfort and the cause of great harm, reflex neuralgias and morbid mental phenomena being among the results. To anticipate all this, the writer advises a careful inspection of the perineum in every case immediately after delivery, and if laceration is found, even if it be very slight, to close it with sutures. This is quickly done, and, because of the benumbed condition, the operation is almost painless. These are the views of many gynæcologists of the day, but we think they are not of universal application. Every obstetrician must know of instances of a greater or less laceration suffered years before

which absolutely remained without injurious results. It is undoubtedly true that many women are unpleasantly affected by even slight lacerations of the perineum; it is also significant that they suffer more after their attention has been drawn to the injury. We subscribe to the views of Dr. Lyman as to the importance of inspecting the perineum immediately after delivery, and add that the husband should be advised of the exact condition of the perineum; in this way the force of the nurse's meddlesomeness will be greatly lessened when she tells her patient the following day how fearfully she is torn. The question of immediate closure should be decided for each case. We would not subject the woman to the pain incident to sewing up a tear which involved no more than the anterior half inch of the perineal body; believing that the irrigation twice daily of the vagina with chlorinated soda water will almost surely be followed by a rapid closure of such a tear and with no bad results. A deeper tear than this we would attempt to close immediately, although once in four times no union has resulted in the experience of the writer, and a secondary operation was required. Let no one deceive himself and patient, however, with the notion that the parts are so benumbed that the stitching will be almost painless. The result of experience is greatly at variance with this statement. The recently delivered woman who has suffered a laceration, of even slight degree, can hardly endure the contact of the examiner's finger; she wants to be let alone, and is in no frame of mind or condition of body to have her discomfort increased by the introduction of sutures. Let the attendant look at this matter boldly and ask himself the question: Has this woman sufficient fortitude to endure the operation? If so, proceed at once; but we believe such instances extremely rare. Usually we administer ether to the surgical degree and proceed in the operation with all the moderation desirable. The vaginal irrigations should be kept up and the silver sutures removed on the tenth day. The most important part of the whole question of laceration of the perineum relates to prevention of the accident. We believe that, under skillful management, the perineum in many cases may be protected from injury.

THE ORIGIN OF CURARE is probably no longer to remain a mystery. The plants which furnish this substance are now known to belong to the *strychnos* family. At present four regions are known which furnish this article, viz., English Guiana, the upper Amazon, in the vicinity of the Rio Negro, and in French Guiana.

PHANTOM TUMORS.—A very interesting discussion, participated in by Drs. McClintock, Denham, McSweeney and others, occurred in the Dublin Obstetrical Society, Feb. 7, on the subject of phantom tumors, and is reported in the Dublin Journal of Medical Science for April. The immediate cause was the report by the Rev. Dr. Samuel Haughton of a case that occurred in the Zoological Gardens in that city, in one of the lower animals. A hybrid being desired, a healthy virgin three year old ass was introduced to a handsome male specimen of Burchell's zebra, and coition repeatedly occurred, and seemed complete. The ass, being originally a tropical animal, comes more frequently into season than some other animals; in fact, the female ass is said to have something like menstruation every five weeks, and to be fertilizable for a period of about ten days each time. The domestic ass being a very common British animal, its peculiarities in these respects are thoroughly known. There was no question as to apparent results in this case; both Dr. Houghton and an expert that he called in diagnosed pregnancy. In the language of the former, "after the first six weeks the ass in question seemed—to use the words of old Weller—to be 'wisibly swellin' before our eyes." But after the legitimate period of eleven months the signs of pregnancy came to an end without results, the expected foal did not appear, and the experiment had to be tried over again. The same result followed, the menses ceased, the abdomen enlarged, the mammary glands swelled, but at the end of the regular period the abdomen and the mammae returned to their normal size in a single day. It was thought, the first time, barely possible that an abortion might have occurred in the night, and the animal have eaten the product, but careful examination revealed no evidence of this and the subsequent events excluded the possibility. After the second failure, an interval of several menstrual periods was allowed to elapse, then the sexual act was again repeated, followed by the same results. In the discussion that followed, greater stress was laid on a psychological element in the production of the symptoms than upon anything else. It is well known that it is not always easy to produce hybrids between even so nearly related species as the zebra and the ass, and it was Dr. Houghton's own opinion that in this case the fancy that she was pregnant may have been in the ass' mind and influenced her physiological condition. It is possible that the ancients were correct in thinking that the maternal instinct is stronger in the lower animals than in woman, in whom it is, in part at least, replaced by reason and intelligence. It is rare that in a woman cessation of the menses and other signs of preg-

nancy last till term without an actual and sufficient internal cause in the shape of a foetus. The case is interesting in this light, as showing the effects of imagination and expectancy in a quadruped. But what shall be said of the following fact that was related by the President of the Society, Dr. Sinclair, as relevant to the subject under discussion? He tried to cross a vegetable marrow with a cucumber, by crossing the male blossom of the latter with the female one of the former. The vegetable marrow blossom developed normally into its proper fruit, which increased in size and ripened magnificently, but on opening it, the interior was found "covered with a hard, glossy membrane, as smooth as possible, and not the slightest attempt at a seed. But there it was, large in the family-way." The subject is certainly an interesting one, and we would advise Dr. Lauder Lindsay to extend his researches in the evidences of mind in the vegetable kingdom.

GASEOUS TUMOR OF THE LABIUM.—Dr. Wm. T. Lusk, before the New York Obstetrical Society, reports a case (Am. Jour. Obstet.) of supposed labial abscess of very large size. Upon the introduction of a hypodermic needle nothing but gas escaped. No pus could be found, although the parts were red, swollen and indurated. No connection between the tumor and the rectum could be detected at this time. The tumor finally sloughed and a communication was subsequently found between the sac and the rectum. It was supposed that an abscess of Bartholin's gland had opened into the rectum and that gas from the bowel, taking the place of the pus, had caused a tumor that had the appearance of an abscess. The patient had been under observation a week and the fistula still existed.

DETECTION OF SALICYLIC ACID.—Salicylic acid is quite in contrast with glycerine respecting the ease and certainty with which it can be detected. Its easy extraction with ether and delicate reaction with a ferric salt, leave nothing to be desired, either in delicacy or accuracy. Pouli (Med. Central Blatt.) has detected this acid in the milk of lying-in women. A few hours after administration the acid can be detected in the milk, but it gives the strongest reaction about 24 hours after its exhibition. The actual amounts of the acid separated by the mammary glands, after an ordinary dose, varied from .075 to .15 gramme. This was estimated by the colorimetric method. The acid was much more easily detected in the urine of the child than in the milk of the mother. In the saliva it was only found in small quantities.

REPORT OF THE WOMAN'S HOSPITAL OF THE STATE OF ILLINOIS, 1879.—The annual report of the managers shows that sixty-six patients have been admitted to the house with the variety and proportion of diseases usual to such a hospital. Of this number, thirty-one required surgical treatment. Among the operations were seven for ovarian tumor. Six deaths are reported from the following causes: Pelvic abscess, one; cirrhosis of the liver with ascites, one; sarcoma of the uterus, one; fibroma of the uterus, one; ovariectomy, two. In the out-patient department, forty-five patients have made in the aggregate one hundred and eighty-three visits to the dispensary. To carry on this work with the economy which characterizes the board of managers, has required an outlay of \$4,192.57. Of this, \$3,920.57 has been paid by patients for board in the institution. The balance has been raised through the personal efforts of the lady managers. In addition, they have paid a debt of \$600. It is stated in the report, with an appearance of regret, that in soliciting for the support of this institution the ladies have been embarrassed by its name, the public entertaining the notion that an institution, called a State hospital, should receive its support from the public treasury. In correction of this error, it may be said that the only sources of revenue are money paid for board by such patients as are able, and individual donations from the public. Through the strenuous efforts of the managers, four beds, one-fourth of the entire number, are constantly filled with charity patients. The medical board consists of Drs. Byford, Etheridge, Flood, Merriman, Nelson, Roler and Sawyer. House patients are permitted to choose their medical attendant from this staff. This institution deserves the confidence of the profession and of the public, as a worthy and useful resort for such as may require the especial treatment which its name implies. The address of the President of the Board of Managers is Mrs. Jessie Clement, 40 Langley avenue, Chicago.

CARIES OF THE ANKLE IN CHILDREN.—A paper by V. P. Gibney, of New York (*Amer. Jour. Obstet.*, April, 1880), on the results of expectant treatment in 30 cases of caries of the ankle in children, closes with the following conclusions: I. Many children annually undergo amputation of the foot for caries of the ankle, when, by conservatism and a proper amount of respect for the *vis medicatrix naturæ*, the member could be saved, the child be spared the mortification of being thus hopelessly maimed, and surgery itself be ennobled. II. Excision as a rule is not attended with as good results in children as authorities have led us to expect; and is rarely ever

justifiable. III. Partial excisions, the passage of tents through the joint, and other operative procedures, offer no advantages over the expectant plan. IV. Nature herself, unaided by art, gets useful limbs, but, as a rule, ankylosis varying in degree and deformity more or less marked. V. The expectant plan of treatment, fully carried out, assures us of more results that are perfect, and more limbs that are useful without the aid of support, than does any other plan known to the profession.

PATHOLOGICAL CHEMISTRY gives no less brighter promise for the future than physiological. It is true that the products with which it has to do are often calculated to offend the sensibilities of the investigator, but the scientific man must not be over-nice in his taste when his work is the subject under consideration. Such at least must have been the ideas which animated Bôkay (*Pester Med. Chir. Presse*) in his researches on sputa. This chemist has estimated the organic constituents of the sputa of several persons suffering from bronchial and lung diseases. Maximum numbers for advanced phthisis, per thousand parts, were found as follows: Fat, 9.725; fat acids, .902; fat acid salts (soaps), 3.972. Cholesterolin, in croupy pneumonitis 4.146 (max.), and in advanced consumption .141 (min.). The quantity of lecithin and nuclein increases, as is to be expected, with the amount of pus corpuscles or cell elements present. Of albuminous bodies were found serum, albumen, globulin and a body resembling myosin.

RUMOR.—Through the officiousness of the New York Medical Gazette, the rumor has obtained currency that Prof. William Goodell is likely to supersede Professor Ellerslie Wallace in the Jefferson Medical College. As the statement is pronounced by H. C. Wood to be unauthorized, and unfounded in fact, it must be so regarded. Pleasantries of this sort must be extremely enjoyable to the gentlemen chiefly interested, and, as they usually appear in the garb of enterprising journalism, they must be received by the profession with becoming indulgence.

DANGER OF A CATGUT LIGATURE.—Dr. A. T. Cabot exhibited at a recent meeting of the Boston Society for medical improvement an ovarian cyst, removed a week previous by Dr. Homans. There were no adhesions, and the case was favorable for the operation, which lasted forty minutes. The patient died within a few hours. An examination revealed abdominal hemorrhage from the loosening of one of the ligatures. This case shows the danger of the catgut ligature. The experience of the late Dr. Peaslee is corroborative of the above.

THE YELLOW FEVER COMMISSION of the National Board of Health announces in its preliminary official report that certain "radiating acicular crystalline forms hitherto undescribed" had been discovered by its microscopist in the air of fever wards and other infected places. It is claimed that other observers have found similar crystals in dust of yellow fever hospitals in New Orleans and other places where the fever prevailed last summer, and that examinations of the dust from Bellevue Hospital, New York, and other places where there was no yellow fever, showed an absence of these crystals. The Board of Health will doubtless soon furnish full particulars concerning the investigations. Meanwhile we may speculate upon the prominent points of this discovery as set forth in the preliminary report. Glass slips were exposed in places suitable to catch the dust of the atmosphere of infected localities, such as hospital wards, dead houses, and soiled linen rooms. The crystals are described as "peculiarly elongated flexible acicular crystals, radiating from little opaque masses" and something hitherto "undescribed by masters of crystallography." What was meant, doubtless, is that the substances grouped in this peculiar manner had not been described. That the form of the crystal had not been recorded would be equivalent to saying it could not be classed in either of the six systems of Dana, and hence was not a crystal at all. As to these crystals being a cause or product of yellow fever nothing is affirmed, therefore since the commission announces the bare fact of the discovery, the presence of the crystals appear to be coincidental rather than causal or consequential, hence there is small room for even speculation. Certain meteorological conditions of infected localities would afford ample field for investigation, particularly with reference to temperature and electrical states of the atmosphere. During the epidemic of 1878 it was currently reported that in some of the universities of the South not enough electricity could be generated by the friction machines to enable the performance of a simple experiment. The U. S. Signal Service would add to the value of their records by instituting ozone tests in connection with the regular standard observations. The Smithsonian Institution observers made satisfactory experiments to ascertain the amount of ozone in the air.

MICROSCOPIC EXAMINATION OF CIRCULATING BLOOD IN THE HUMAN SUBJECT.—An important paper by Dr. F. B. Tiffany appears in the St. Louis Medical and Surgical Journal for April 20, 1880, on the Microscopic Examination of the blood in the living person. Dr. Tiffany has, by making the prepuce tense, observed in this part not only the blood circulating but also pathological conditions described by Virchow. This simple and sensible auxiliary means of making physiological and pathological studies, commends itself at once to students and practitioners.

FEE TABLE OF THE CHICAGO GYNECOLOGICAL SOCIETY,
Adopted December, 1879.

GYNECOLOGICAL.		
First consultation at office or house in uterine cases	\$	10
Subsequent consultation at house		5
Subsequent consultation at office		3
Written opinion in addition to consultation	5 to \$	10
Application of pessary		10
Consultations with other physicians	10 to	25
Perinæorrhaphy, including sphincter ani muscle	100 to	200
Perinæorrhaphy, not including sphincter ani muscle	50 to	100
Elytrorrhaphy		100
Removal of vaginal cystic tumors		100
Trachelotomy		25
Trachelorrhaphy		100
Hæmorrhoids	25 to	100
Fissure in ano		25
Fistula in ano	25 to	50
Operations on rectum for ulcers		50
Removal of cyst of vulvo-vaginal gland		25
Caruncle of urethra	25 to	50
Forcible dilatation of urethra	25 to	50
Kolpo-cystotomy		50
Operation for vaginismus		50
Operation for labial and peri-rectal abscess		20
Injection of bladder		5
Vesico-vaginal and recto-vaginal fistula	100 to	300
Vesico-utero-vaginal fistula; or vesico-uterine fistula		200
Kolpokleisis		200
Amputation of cervix	50 to	100
Removal of the entire uterus		1000
Curetting cavity of uterus		25
Radical excavation of uterus for malignant disease	100 to	500
Removing cervical polypi	10 to	25
Removing corporeal polypi		100
Removing cervical interstitial fibroids	50 to	100
Removing corporeal interstitial fibroids	100 to	500
Batty's operation, vaginal or abdominal	300 to	500
Tapping or aspirating abdominal cysts		25
Operation for pelvic abscess	25 to	50
Ovariectomy	300 to	1000
Laparotomy for fibroids and malignant growths	300 to	1000
OBSTETRICAL.		
Attendance upon natural labor	20 to	50
All subsequent visits to be charged extra at usual rates.		
Attendance upon tedious labor	30 to	60
Attendance upon complicated labor	50 to	200
Anæsthesia during labor, extra	5 to	10
Version	45 to	75
Forceps delivery	50 to	100
Craniotomy	100 to	200
Cæsarian section	500 to	1000
Gastro-elytrotomy	500 to	1000
Attendance upon simple abortion		10
Complications in abortions, and all subsequent attendance, to be charged for additional on the above basis		
Consultation during labor	10 to	20
Members: W. H. Byford, President; Edward Warren Sawyer, Secretary; H. T. Byford, E. C. Dudley, C. W. Earle, James H. Etheridge, T. Davis Fitch, A. Reeves Jackson, H. Webster Jones, H. P. Merri-man, De Laskie Miller, D. T. Nelson, E. O. F. Roler.		

PROGRESS IN MEDICAL EDUCATION.—In this relation medical colleges are of four classes:

I. Colleges which, from their circumstances and surroundings, have the power to introduce any desired reform, and do it.

II. Colleges which, from their circumstances and surroundings, have the power to introduce any desired reform, but, with an eye to dividends, do not do it.

III. Colleges which, from their circumstances and surroundings, have not the power to introduce reforms to the extent which they would desire, but do their best.

IV. Colleges which, from their circumstances and surroundings, have neither the power nor the inclination to introduce any desired reforms and do not try.

Foremost among the first class is Harvard Medical College. The preliminary examination has been so modified and extended as to require the degree of Bachelor of Science, or its equivalent, including the translation of easy Latin prose. The experiment is also made of adding a fourth year to the course, upon the completion of which will be conferred the degree of Doctor of Medicine, cum laude. Although at present the student may graduate after the usual course of three years, it is believed that the college will soon exact from every candidate for examination the entire four years. The fourth year's studies include clinical medicine, clinical and operative surgery, ophthalmology and otology, dermatology and syphilis, mental and nervous diseases, laryngology, hygiene and legal medicine, obstetrics, clinical and operative, diseases of women and diseases of children. Harvard is ahead!

RUSH MEDICAL COLLEGE.—Dr. Stansbury Sutton of Pittsburg, Pa., who was the successful competitor last January in the concours for the leadership of gynecology in the spring faculty, has just completed his course of thirty-nine lectures. Two hundred and thirty-six students were in attendance. Dr. Sutton in his lectures mainly followed the teachings of Emmet, and is thought to have given one of the most satisfactory courses ever delivered in Chicago on gynecology. He expects to return for another course next year, but has not arranged as yet to change his residence. Relative to the concours, the *British Medical Journal* remarks that the concours seems to be adopted only in cities fully organized, like Paris or very young like Chicago, and declares that in London students are kept well in their place by compulsory attendance upon all the lectures, and only the lectures specified, in order that their certificates may be signed, that the lecturer is sure of his class, whether he be audible or inaudible, or good, or bad, or indifferent, and that the London schools furnish a large amount of inefficient lecturing. The *British Medical Journal* thinks these schools might profit by a breath of reform which the

system of concours would blow in upon them. It is notorious that the concours in Paris is sometimes corrupt. It is probable that in London or in any other city it would be exceedingly liable to become so. In Chicago, the fairness of the concours thus far will be universally admitted. It has, moreover, been the means of securing excellent lecturers. It has certain objections, however. Manifestly, any man who could be secured to the college by the concours, could be secured without the concours. The college would therefore have a much larger number of eligible men from whom to select the lecturer, since many would be reluctant to enter such a contest and take the chances of being advertised afterwards as having failed, a sort of advertisement not damaging to a recent graduate, but exceedingly unpleasant to a gentleman whose experience and attainments qualify him to lecture acceptably to a class of 236 students in a medical college. Rush college is at least to be congratulated on the excellent advertisement which this concours has furnished, in the favorable announcements and comments which have appeared very generally in the medical journals, both at home and abroad.

ANTISEPTIC TREATMENT IN MILITARY SURGERY ON THE BATTLEFIELD.—At the last meeting of the eighth congress of the German Society of Surgeons (*Sangenœck's Archiv.*, B. 24, H. 2, 1880,) Professor Esmarch advised antiseptic occlusion of wounds at the earliest possible moment. His plan was the following: Each soldier is to carry a small package 12 centimeters long, 9 centimeters broad and 2 centimeters thick. This may be sewed into the lining of his coat at a certain place, the anterior part of the skirt. The package contains a triangular piece of cotton cloth, with a diaper pin, a roller bandage of starched gauze, and two pieces of salicylized gauze or cotton. The whole package is wrapped in a varnished paper, impervious to air and water. The following reasons led him to propose this arrangement: The greatest number of wounds which can be treated without operation are rifle bullet wounds, having one or two openings. The majority of these wounds cause little or no external hemorrhage. The discharge from such wounds is very slight if the wound is kept aseptic. We know from the experience of former years that a large number even of the more severe bullet wounds will take an aseptic course when an aseptic incrustation has formed on both the openings. Soiled dressings, such as charpie, are not at all apt to form an aseptic crust with the blood of the wound. A piece of antiseptic cotton, pressed upon the fresh wound, will easily form a dry crust capable of preventing the introduction of infectious substances. The salicylic cotton is preferable to the carbolized, because of the less rapid evaporation of its antiseptic agent. The piece of cotton is to be placed on the wound, the roller, first moistened with a little wine, water or brandy,

is then applied to keep the cotton in place, and finally the triangular piece of cloth is applied to immobilize the wounded part, as, for instance, a sling for the arm. Experience from the most recent wars has taught that in a number of cases, where an immediate antiseptic occlusion of the wound has taken place, even the torn off pieces of soiled clothes in the interior of the wound, formerly so much dreaded, will not disturb the antiseptic course of the wound. This interesting fact is a remarkable proof of the value of the antiseptic dressing. At the same time, it is of course impossible to explain it by means of the antiseptic theory.

ASYLUM ABUSES.—Dr. E. C. Spitzka, in the St. Louis Clinical Record for March, 1880, mentions the case of a policeman who, during an epileptic attack, was sent to a "certain hospital" in New York and there invested in a strait-jacket, which was so tightly laced that it caused his death. The doctor also refers to a case previously mentioned by him in the Journal of Nervous and Mental Diseases, April, 1878, wherein the intelligent physician in charge of an insane asylum administered bromide of potassium and hyoscyamus to relieve the stupor of a moribund epileptic.

Mr. Lemuel Freeman, heretofore acting in the capacity of advertising and subscription agent for this journal, is no longer authorized so to act. Remittances for subscriptions taken by him should be made direct to this office.

BOOKS AND PAMPHLETS RECEIVED.

- GEORGE M. BEARD, A. M., M. D. The Problems of Insanity, a Paper read before the New York Medico-Legal Society, March 3, 1880. Reprint from the Physician and Bulletin of the Medico-Legal Society.
- R. J. LEVIS, M. D. Ethylization: The Anesthetic use of the Bromide of Ethyl. Reprinted from the Medical Record.
- S. V. CLEVINGER, M. D. Mechanical Therapeutics, Chemistry and Toxicology of Mercury. Reprinted from the Chicago Medical Journal and Examiner, April, 1880.
- E. H. SARGENT & Co. Illustrated Catalogue of Surgical Instruments, Galvanic Batteries, Elastic Stockings, Deformity Apparatus, etc. 1880.
- QUARTERLY REPORT OF MEDICAL OFFICERS, United States Army, with their Stations and Duties, as Reported to the Surgeon General, April, 1880.
- CHARLES W. EARLE, M. D. The Cinchona Cure for Intemperance. Reprinted from the Chicago Medical Journal and Examiner, February, 1880.
- J. G. MEACHEM, JR., M. D., Chairman of the Board of Health, Racine, Wis. Report of the Condition of the Water in the First Ward of the City of Racine.
- HEALTH DEPARTMENT OF THE CITY OF NEW YORK, Bureau of Vital Statistics, Summary of Births, Marriages, Still-births and Deaths in New York City during the Year 1879.
- WM. R. SMITH, SR., M. D. A case of Intra-Uterine Ichthyosis. Reprinted from the American Journal of Obstetrics and Diseases of Women and Children, April, 1880.
- LAWRENCE TURNBULL, M. D. Lecture on Pain and Anæsthetics. Delivered before the Class of the Pennsylvania College of Dental Surgery, Philadelphia, February 6, 1880. Reprinted from the Med. and Surg. Reporter, March 6, 1880.
- W. H. DALY, M. D. Elongating Hypertrophy of the Femur and Tibia of Opposite Sides (the Osteitis Deformans of Paget). Reprinted from the Med. Record, February 28, 1880.

ORIGINAL CONTRIBUTIONS.

THE ACTION OF BENZOIC ACID.*

BY DR. R. KOBERT.

We find a long, interesting article on this subject in Schmidt's Jahrbucher, B. 185, No. 1, page 12, by Dr. H. Kobert, based in part upon investigations made by the author together with Dr. Schulte. In order to investigate the passage of benzoic acid into the saliva .6 of a ten per cent. solution of benzoate of magnesium was injected into the femoral vein of a dog, followed by the subcutaneous administration of .02 of pilocarpine in order to increase the amount of saliva. The saliva was alkaline, and appeared in every respect normal. Forty cubic centimeters were evaporated to dryness and subsequently treated with dilute sulphuric acid. This mixture was agitated violently with ether, upon which it swelled into a bulky jelly, but finally the ether could be removed. This ethereal solution was now rapidly filtered and allowed to evaporate in a watch glass. A crystalline mass remained on the glass which, by chemical tests, was proved to be benzoic acid.

Administration by the stomach likewise causes the benzoic acid to pass into the saliva in the dog, while in man the proof cannot be furnished very easily. A patient with acute rheumatism received for eight days a teaspoonful of five per cent. solution of benzoic acid every hour. On the ninth day 300 cubic centimeters of saliva were collected after an injection of pilocarpine. The same treatment as above did not yield a single crystal of benzoic acid. From a second similar experiment the author concludes that benzoic acid passes into the saliva of animals, but not into the saliva of man. Moreover, Pauli has proven that a smaller substance, salicylic acid, passes also into the saliva, but in the merest traces.

In every case after the internal administration of benzoate of sodium, a peculiar reducing substance was found in the urine by Salkowski and Senator. This statement the author cannot confirm, since he has never seen this after the inhalation of benzoic acid, and only rarely after its internal use. This substance is characterized by the following reactions:

I. An alkaline cupric sulphate (Fehling's) solution is reddened on heating and precipitates cuprous oxide, although not so readily as in the presence of sugar.

II. Knapp's mercury solution is colored black on heating, and after a time the reduced mercury collects as a black precipitate.

III. Subnitrate of Bismuth is blackened by the reducing substance on heating in the presence of sodium carbonate.

IV. Ammoniacal solutions of nitrate of silver and Sachsse's potassic mercuric iodide solution are blackened, even in the cold.

*Translated and condensed.

V. The plane of polarized light is not turned to the right, but either slightly to the left, or not at all.

If we base our diagnosis upon these five reactions, we will find but rarely more than mere traces of the substance in urine: in fact, this, according to Sal-kowski, is normal, even when no benzoate of sodium has been medicinally administered, since many of our vegetable articles of diet contain small quantities of benzoic acid. If, however, the reducing substance is found in notable quantities in the urine, it is indicated that the system is thoroughly saturated with benzoate of sodium, and that its use should be discontinued.

The author communicates further investigations on the reducing substance found in the urine, which prove that it is not sugar, but which do not reveal its nature. The most probable supposition is that it is a variety of glycosuric acid conjugated with the benzoic acid radical. This substance does not remain long in the urine after the suspension of the benzoic acid. It does not appear at all in the saliva even if this contains benzoic acid. It is also an unexplained peculiarity that this reducing substance appears in the urine only after administration by the mouth or by subcutaneous injection, but never after the injection of benzoates into the veins, even in fatal doses.

The author records experiments upon the poisonous properties of benzoic acid in warm and cold blooded animals. Apart from the local irritant effect, there is no difference between the acid and its salts.

In frogs muscular twitchings appear, sometimes even tetanus, in consequence of the administration of the poison per orem or subcutaneously. The respiration was generally accelerated, the pulse unchanged, almost until death. The reflex excitability decreased rapidly, respiration ceasing at last, and the animal lying motionless, as if dead. Recovery, however, was still possible, provided the dose was not too large. This depression of excitability pertained equally to the brain and spinal cord.

In warm-blooded animals the phenomena of excitement, twitchings and convulsions, were less marked, or even absent. The depression of sensibility, however, was quite noticeable. At first ataxic movements of the forelegs appeared, followed by paresis and ultimately paralysis, spreading to the hind legs. The temperature was reduced very considerably. Vomiting also occurred, except, of course, in rabbits. The post mortem examination revealed frequent hemorrhages and erosions of the mucous membrane of the stomach, even though the acid or its salt was injected subcutaneously or into the veins.

The blood pressure is reduced by large doses only. This effect is independent of the pneumogastric nerve. Death is caused by paralysis of the respiratory center, but artificial respiration cannot prevent

it if the poison continues to act, since it paralyzes the heart ultimately. The entire central nerve system is also paralyzed by this agent. The acid or its salts could not be administered in doses greater than two per cent. of the bodily weight without causing death. From their experiments the authors deduce the following practical hints:

I. Since in a considerable number of cases the post mortem revealed the mucous membrane of the stomach in a hyperæmic, bleeding, or even mortified condition, although the substance was not taken by the mouth, care should be taken in not administering too large a dose, especially as the stomach is almost the only route in man.

II. The narcotic depression of the central nervous system affords a valuable indication. If sufficiently large doses are given the remedy must be valuable in cases of neuralgia and exalted irritability. At the same time the depression of the nervous system affords a gauge of the saturation of the system with the drug. Interference with the use of the arms and mental depression, of course, indicate its discontinuance.

III. The occurrence of the reducing substance in the urine is also a gauge for the action of the drug, since in animals (apart from intra-venous injections) the symptoms of poisoning ran parallel with the presence of the reducing substance in the urine.

IV. The reduction of temperature by this agent is quite excessive, but does not occur until other serious symptoms of poisoning are manifested. Its use as an antipyretic is hence as yet questionable.

The authors then describe their experiments made in the Clinic at Halle. The agent was often administered subcutaneously in a forty per cent. solution. The reducing substance did not appear in the urine with a dose less than ten grains, and might be expected only when the patients complained of nausea. The use of free benzoic acid caused its appearance most readily. Some phthisical patients who received subcutaneous injections complained of local pains and refused a repetition. There was a distinct fall in the temperature after each dose, more so than from internal administration or inhalation, and the sensibility was depressed. Two cases of tuberculosis of the palate are also recorded, which were decidedly improved for the time being by the use of benzoate of sodium.

The agent was found advantageous in one case of erysipelas, in others it proved valueless. The authors have but rarely treated erysipelas exclusively with benzoate of sodium, but have had reason to be satisfied with its treatment. In some cases of obstinate neuralgia it was given instead of salicylate of sodium and acted as promptly, while in other instances it was of no avail.

Their experience with acute articular rheumatism was the following: In the latter part of 1879 a severe epidemic of rheumatism appeared in Halle, the peculiarity of which was that many cases were not

affected by salicylate of sodium, although the agent was given in doses of twelve grains per day. After several trials with other agents, benzoate of sodium was resorted to in doses of from five to ten grains per day. Although these cases did not improve quite as rapidly as they usually do under salicylate of sodium, the effect was unmistakable. The disease retrogressed slowly, but surely. Relapses occurred only when the use of the drug was suspended too soon. The sweating, often so disagreeable a consequence of the use of salicylate of sodium, was altogether absent. The tinnitus, also, was rarely intense. The loss of bodily weight was equal to that caused by salicylate of sodium.

Among the diseases in which the agent proved utterly valueless, we must mention especially chronic articular rheumatism. As an antipyretic, the drug was used in typhoid fever and peritonitis. In a case of the latter affection, four grains did not exert the least influence. In another case, its action was less than that of other antipyretics. In articular rheumatism the temperature never sank until the swelling of the joint had been reduced. Sub-normal temperature was never observed. In one case of typhoid fever, the agent given every half hour had no effect whatever. Negative results were also obtained from its use in interstitial nephritis and diabetes mellitus.

The results in numerous cases of phthisis did not differ from those of various Berlin physicians. The inhalations neither influenced the formation of cavities nor the fever. The subjective well-being, however, has somewhat improved. Especially in incipient phthisis did the patients praise the inhalations. This could not be accounted for alone by the novelty of the procedure, it seemed as if the benzoate of sodium diminished the sensitiveness of the lungs. Frequently the objective symptoms, if light, also disappeared, but hemoptysis was not prevented. A student, who inhaled the agent every two to four hours, was nevertheless attacked by acute articular rheumatism, showing how incompletely the body is saturated by inhalations.

A disagreeable system in connection with the physiological experiments was the frequent occurrence of an intense nausea, sometimes from the mere smell of the salt, as well as frequent vomiting, occasionally bloody in appearance. Only one case really showed distressing symptoms on the part of the stomach. A young man cured in the clinic of articular rheumatism by benzoate of sodium, had formerly never complained of his stomach. After his discharge, he continued daily doses of a ten per cent. solution of the drug as a prophylactic, although they regularly caused nausea. One day, after taking a dose from the medicine bottle, he lost consciousness, and on every attempt to rise he fainted. His healthy color gave way to a deathly palor, occasioning the suspicion of hemorrhage of the stomach. Although he did not vomit blood, he

passed tar-like stools for two days. This fact confirmed the suspicions.

The authors never noticed any such anomalies on the part of the pulse, the blood pressure or respiration as Klebs reports. They merely found a quieting effect upon the central nervous system. The absence of reduction of temperature in man, is to be accounted for by the rapid excretion of the substance. Larger doses, as 10 grains, could not be safely given on account of the danger to the stomach. The subcutaneous administration is no doubt better suited for this purpose.

The authors now point out the resemblances and differences between benzoic and salicylic acids and their salts. From these remarks we copy: that while both acids are antiseptic the salt of benzoic acid alone possesses this property. Both substances cause, at first, irritation, and later depression of the nervous system. The first stage is much more marked with salicylic acid, and the second with benzoic acid. Hence the latter agent does not cause the same degree of tinnitus, sweating and dyspnea so frequently produced by the former. Salicylic acid and its salts first paralyze the heart, benzoic acid attacks the respiratory center. Hence the stage of depression is of much shorter duration when caused by salicylic acid. The post mortem shows ecchymosis of the pleura and heart from salicylic acid, but of the stomach in benzoic acid poisoning. Moreover, benzoic acid preparations possess an expectorating action.

Hence the authors conclude that benzoic acid and its salts deserve preference over salicylic acid:

- I. In diseases requiring internal antiseptics.
- II. In local disinfection of mucous membranes with alkaline secretions.
- III. Whenever the salicylic acid causes too much tinnitus and sweating.
- IV. In irritative affections of the nervous system, and
- V. Whenever expectoration is indicated.

HYPODERMIC SYRINGE CASE.

BY THAD. S. UP DE GRAFF, M. D., ELMIRA, N. Y.

The hypodermic syringe has become an almost indispensable instrument to the physician, and, since it is so extensively employed, any device that will improve its working qualities will be of service to the profession.

The instances must be rare where the physician has not been perplexed, not to say vexed, when called upon to administer an anodyne to a suffering patient, to find that the piston of his syringe had become perfectly dry, necessitating the loss of much precious time in restoring it to a working condition. Many and loud have been the complaints that are heard of this provoking difficulty with this useful

little instrument; and, having suffered the inconvenience many times myself, I sought to remedy it and fully succeeded in the little device pictured below:



I sent my syringe to Geo. Tiemann & Co., New York, with instructions to make a hard rubber case just large enough to receive the instrument without its points. This case is filled with a fluid composed of one part glycerine and two parts water, into which is plunged the syringe (the superfluous fluid escaping from the case as the barrel of the syringe is inserted) and the top securely screwed on. It is now air tight, entirely preventing the evaporation of the moisture from the piston and keeping the syringe at all times ready for use. Should no occasion present for its use for six months or a year, yet, when the top is unscrewed and the syringe removed from its bath, it will be found in perfect working order. The rubber case occupies but

a trifle more room than the syringe, and is carried in the usual morocco case with the points and bottle of morphine or other solution.

CORRESPONDENCE.

NEW YORK, April 25, 1880.

The recent discussion in the State Legislature at Albany upon the Lunacy Reform bill, and the temporary defeat of a measure which promised much for an improvement in the care of the insane, has excited considerable comment in medical circles of this city. It will be remembered by readers of the CHICAGO MEDICAL GAZETTE that during the month of December a large meeting was held at the Cooper Institute to consider some method of bringing about reform in the management of the insane asylums of the State. This meeting was attended by many well-known members of the medical and other professions, and its practical result was the appointment of a committee to devise a plan for the organization of a State Lunacy Commission. The character and standing of the gentlemen constituting the committee were such as to establish confidence in the thoroughness and wisdom of any measure which they might propose. They were Messrs. Wm. C. Church, Dorman B. Eaton, Chas. E. Whitehead and Drs. E. C. Sequin and Geo. M. Beard. After a number of conferences, these gentlemen brought forward a bill which commended itself at once to all who had given the subject any consideration. Heretofore the supervision over asylums had been divided between a State Commissioner in Lunacy and the State Board of Charities, a division which caused—as such division of duty usually does cause—a confusion and consequent neglect in the performance of the work. The character of the State Commissioner, Dr. Ordonaux, is such as to raise him above any

suspicion of misrepresentation in regard to matters coming under his observation. But that he may have been misled by interested parties seems probable from the fact that in a paper which he read before a company of physicians at the house of Dr. C. R. Agnew recently, he not only defended the present system of supervision, but denied with some vehemence the necessity of any reform in asylum management. As many facts totally incompatible with the opinion of Dr. Ordonaux were known to his hearers, it seems evident that the gentleman was misinformed upon a subject in regard to which he should have spoken with authority. And the ease with which single, pure-minded individuals can be misled by those accustomed to deception may account for the persuasion of the State Commissioner that in his department reform was unnecessary.

The State Board of Charities, whose duties are numerous and whose field of supervision is so wide as to prevent a really thorough examination of any one department, could hardly be expected to discover what had been overlooked by the Commissioner. It was evident, therefore, to the committee appointed by the meeting at Cooper Institute that a concentration of the power of supervision in a single body, large enough to insure its careful execution, would be a most desirable result. They therefore recommended that the office of State Commissioner in Lunacy be abolished, and that his power be delegated to a State Commission in Lunacy, to consist of the three members of the State Board of Charities together with three other gentlemen, two of whom shall be physicians of regular standing. This commission is to have the power of examination and supervision of all the asylums of the State, and its members, being appointed to serve eight years, will be free from party influence or personal obligation to the Governor who appoints them.

At the time of the introduction of the bill into the Assembly by Speaker Sharpes, Mr. Dorman B. Eaton published a letter in its support, stating its provisions were similar to those of a bill passed by Parliament about fourteen years ago, which resulted in the decided improvement in the care of the insane in Great Britain. Those who are familiar with the work of the British Board of Commissioners in Lunacy and know of the great change which they have secured in the management of the asylums of that country, will anticipate much from the initiation of a similar reform here. It seemed superfluous for the committee to issue any defence of their bill. A statement, however, appeared in the Medical Record of this city, putting forth the necessity of its provisions on the grounds of, first, the rapid increase in the per cent. of insane patients; secondly, the inadequacy of the present accommodations for their care; thirdly, the imperative need of a thorough overhauling of existing institutions with a view to reform in their management and in the treatment of patients; and fourthly, the want of an authorized

and responsible body to conduct the work. A further reference to the matter was made by Dr. Beard in a paper upon the Problems of Insanity, which he presented to the Medico-Legal Society of New York at their recent monthly meeting.

On all sides the bill seems to find favor. It was looked upon as the beginning of that much needed work of investigation which has been delayed too long, as the outcome of the strenuous efforts made so often heretofore in vain by individual members of the profession, especially Drs. Hammond and Sequin, and as an evidence that the popular suspicion of and indignation against the present system of asylum management had not been fruitless. That opinion is still entertained. And although the influence of those individuals whose interest it is to sustain the present system and profit by its defects has been underestimated—as was seen by the unexpected defeat of the bill last week—its final passage will doubtless be secured. The majority by which it was defeated (41 to 39) was so small that Speaker Sharpe had no difficulty in securing its recommitment for amendment, and the matter will not be allowed to rest here. This bill will be brought up again with some unimportant changes, and the force of public sentiment, which is being brought to bear in its favor, will ensure its success. In a recent conversation Mr. Dorman B. Eaton said: “If this bill becomes law, as I have little doubt it will, full discretionary power to deal with all abuses that exist in these institutions will be given to a body of men whose experience and undoubted probity specially qualify them to take the matter in hand; full authority will be vested in a powerful body able to redress all grievances and materially improve the present condition of the insane, and surely such a measure should command the earnest support of every right thinking citizen and the vote of every member of the Legislature who has the welfare of his country at heart. Brought face to face with a Board such as this bill will place over the asylums, their managers will have to become active disciples of reform or make way for others better suited to discharge their functions.” Such an opinion from such a man carries with it the weight of authority. It is said that much of the opposition to the bill has come from an institution in the center of the State, whose influence is extensive and whose superintendent might suffer from too careful an investigation. Mr. Edgar K. Apgar, the agent appointed by the Legislature to examine into the workings of our charitable institutions, in his report says: “During my examination at Utica I thought I could see some of the reasons that contributed to its asylum’s large scale of expenditure. Its purchases are largely made of business houses in Utica instead of inviting bids from wholesale houses in the large cities, the plan adopted at the Melard Asylum in this State and elsewhere.”

Perhaps a little of the “sunlight of publicity,” so popular in political circles, might illumine the

dark corners of the Utica Asylum as to the advantage of the State treasury and the discomfiture of a little ring. A searching investigation could not do any harm to the inmates, whose care is the first consideration, and might bring to light many points of interest. The “expectant treatment” in the case is certainly a failure. It may be said that no one, nowadays, is thoroughly happy who has not some subject for criticism. Perhaps some of our physicians and public men are right in supposing that no more suitable or prolific subject can be selected than the management of our insane asylums, and it is fortunate that the work of the critics promises to be of some avail.

Members of the profession in this city may congratulate themselves at last in the possession of such a commodious and well-appointed medical library and reading-room as is now open to the public in the new building of the New York Academy of Medicine. The third floor of the building has been fitted up comfortably as a reading-room, and the collection of medical journals to be found there is probably as complete as any in the country. There are on file 49 American, 27 German, 25 French, 13 English, 1 Russian, 1 Danish, 3 Spanish, and 5 Italian periodicals, and additions of new journals are being made as they appear. Access may be had to them now in the evening as well as during the day, the library hours have been extended till 9 P. M. The library, which occupies the second floor, including a wide gallery around the new auditorium, is also in a flourishing condition, there being nearly 15,000 volumes upon its shelves. The generosity of Dr. Dubois has not been exhausted by his previous liberal donations, which enabled the society to make the recent improvements in this building. He is now adding daily to the alcoves a careful selection of standard works. Only yesterday about 20 volumes of recent publications were sent in in his name, and the librarian says that not a week passes without a similar or larger contribution.

The hall of the society, a description of which was given in the GAZETTE at the time of its opening, has proved a great convenience in many respects. Among others, it affords room and facilities for illustrations of papers read, by diagrams thereon upon the screens from a calcium lantern, a convenience which lecturers are not slow to take advantage of. Dr. Arnold, of the Medical Department of the University of New York, was able to give a very satisfactory demonstration of the Graphic method in the study of physiology, a few weeks ago, by this means, and others will follow him.

It is said, by those who are acquainted with the plans of the academy, that the project of instituting courses of lectures to practitioners on special subjects is under favorable consideration. These will correspond to the Lumleian, Croonian and other courses delivered in London, and will doubtless command the same interest which those celebrated

lectures have secured. We have specialists in this country—both East and West—whose opinions are as worthy of a hearing as any upon the other side of the Atlantic. A series of lectures, such as is contemplated, will give an opportunity for them to be heard, which no other method can supply. Such a project will be hailed with satisfaction by all who are interested in the progress of medical science.

S.

THE PRESCRIPTION QUESTION—PHARMACIST vs. PHYSICIAN.

There seems to exist at the present time, amongst the physicians of this country, a certain amount of excitement regarding the indiscriminate repetition of prescriptions by the pharmacists. They claim that the pharmacist, by compounding a physician's prescriptions an unlimited number of times, without a written order from the practitioner, robs the latter of his just fees and compensation for medical advice and skill. In their endeavor to correct this assumed injustice done them, some physicians have clubbed together and have threatened all obstreperous druggists with their supreme ire; while others again, and apparently the younger ones in the profession, try their luck, and test their pharmaceutical skill, by distributing a miniature drug store about their coat pockets and dosing their patients themselves. Now, since every medallion has two faces, so there are two sides to this question, which let us examine.

When, in times long gone by, the art of healing first sprang into existence, and became specialized as a new and distinct branch of man's vocations, then the man understanding disease and the properties of certain natural products, was also the man who collected those remedial agents and prepared them according to his necessities; or, in other words, the doctor and the apothecary were one and the same person. This was entirely satisfactory when medical knowledge was confined to extremely narrow limits, and when the healing agents employed were such plants and perhaps animal and mineral substances as could be readily obtained in the immediate vicinity. Gradually, however, the scope of the science enlarged. On the one hand the accumulating facts concerning diseases of the body and their treatment soon occupied the entire attention of the practitioner, while on the other, through the influence of trade and travel, the materia medica became greatly enriched, and the manufacture of the Galenical as well as chemical preparations grew more intricate from year to year. At last, practice of medicine separated into two branches, in conformity with the law of the division of labor, the art of prescribing and the art of dispensing. Then, as has been demonstrated over and over again, no one of these professions is the superior of the other, but they are

equal, sister and sister, sprung from the same parental stock, both dependent on each other, neither capable of existence nor at least of progress without the other. The science and art of pharmacy is for naught if deserted by the medical profession; while therapy again must claim a helping hand from its sister science.

Now, to look at the "prescription" in particular. What is it? Much has been written concerning the proprietorship of physicians' prescriptions, some writers claiming them for the originator, others for the dispenser, and lastly others, but those by no means least in number, for the patient. Now, what is the truth? In Germany (as to other countries I know not) the prescription, as soon as the medicine is paid for, belongs to the patient by right of law. In the United States the pharmacist retains the same as his only protection, oftentimes against the will of the customer; but he repeats it ad libitum, against the physicians' will, under the sanction, however of custom. Now, before any great animosity shall arise between the two professions over this mooted question, a way ought to be found out of the dilemma. Let us first answer the above question—what is a prescription?

A sick person consults the physician about his disease. The doctor answers: "I know what ails you and for a certain consideration I will give you medicines that will effect a cure." Very well! But presently the doctor finds it impracticable to dispense his medicines for various pertinent reasons, therefore he engages an assistant whom he tells what to prepare and how to do it. This is the second, and now comes the third part of the metamorphosis. The doctor being frequently called away from his office, it becomes impossible for him to personally direct the compounding of his remedies, he is compelled to give written instructions to his famulus, and the latter, having meantime acquired more skill of manipulation and a more thorough knowledge of drugs and chemicals than his master, finally proposes a perfect separation of their individual interests. Looking at it in this light, it clearly appears that the physician has an absolute right to his prescriptions, they being merely written directions to men versed in the compounding of medicines, he himself not finding it convenient to prepare the mixture; and inasmuch as no one could compel the medical attendant to divulge the composition of his remedy, just so little claim has the patient to the prescriptions when once compounded. The sick person does not pay the doctor for the prescription per se, but for his advice. The doctor might give the apothecary verbal instructions, the latter might write those down in order not to forget, and, the medicine being put up, cast away that slip of paper. This he might properly do with all regular prescriptions, were it not that he must protect the prescriber against attacks from the public, and chiefly himself against false accusations liable to be made by the

doctors.* Therefore the pharmacist properly becomes the custodian of physicians' prescriptions, which, logically, he has no right to repeat without authority, nor of which may he furnish a copy to the patient. Custom, however, decrees differently, and the apothecary, being not only a professional but also a mercantile man, cannot readily oppose public opinion, assuredly not as long as he does not enjoy governmental protection. There seems to be, however, a remedy for the complaint; it is very simple, and the object of this communication is to bring it to the general attention of our Western practitioners and to ask them to give the same a fair trial:

Write or print on your prescription paper: "Do not repeat!" and "Furnish no copy!"

But few respectable pharmacists would disregard such a request when made good-naturedly and in black and white, while, on the other hand, they would scorn to heed if any clique should proclaim its determination to crush out of existence any druggist who would fail to desist from certain things.

Those practitioners in larger towns who will insist on dispensing their own remedies in order to increase their revenues by forcing people to come again, must not forget that they are struggling against the tide of progress, and they will probably learn to their dismay, sooner or later, that they cannot turn back its flow, while they themselves will be rated with the Indian doctors, water doctors, root and herb doctors, and all of that ilk. And who can blame an intelligent public? In justification of this practice we often hear it asserted that physicians must do it in self-protection, owing to the deprecable habit of druggists to "prescribe over the counter." There undeniably is some truth in this accusation, but the matter is not so serious as generally implied. As a rule, people are really prescribing for themselves, as they will ask the apothecary for a purgative, a cholagogue, an expectorant, a sedative, etc.; or, they will say: "Give me something good for the toothache," or something to that effect; but in nine cases out of ten the physician looses nothing, for those very same parties would not pay the consultation fee even if not accommodated by the druggist; they would either find a more willing, but perhaps less competent, helper on the next corner, or try some household remedy advised by some kind neighbor. For we know well that in this country everybody is a natural born doctor, and that any layman understands as much about medicines as all the professors of the medical colleges—and more too! Anyone at all conversant with the business of a retail drug store must unhesitatingly admit that a certain percentage of prescribing for the masses is absolutely unavoidable, and cannot be eradicated by even strin-

*Only a few weeks ago a graduate of one of our medical colleges maliciously pronounced a preparation made at the writer's pharmacy as worthless, simply to send trade to his favorite drugstore.

gent pharmacy laws, as witness England, Germany, and other countries, not to speak of the injustice or even cruelty done people of slender means barely able to purchase a simple drug recommended by the apothecary, were they compelled to fee a physician for advice.

ADOLF G. VOGELER, Ph. G.

CHICAGO, April, 1880.

CLINICAL REPORTS.

PROGRESSIVE MUSCULAR ATROPHY.

A Lecture delivered in the Mercy Hospital, April 21.

BY PROF. WM. E. QUINE.

Our patient is a lady, aged thirty-nine years. She has informed us that her father died at the age of forty-six, after a week's illness. He had previously been in good health. Her mother died at the age of seventy-nine. The old lady was bed-ridden for two years before her death, partly because of her decrepitude, and partly because of an unwieldy abdominal hernia, which became more troublesome when the sitting or erect posture was assumed, and which made locomotion difficult and painful. For some years before her demise she had complained of numbness in her fingers and hands. This was not associated with any emaciation of the parts nor any impairment in their mobility, nor any cutaneous eruption upon them, but as years advanced the numbness became more and more pronounced. Our patient has two half-brothers. One of them is mentally incompetent. He is not the subject of such delusions and impulses as would make him dangerous to others, but since birth he has been regarded as a person of feeble intellect. His manner is unstable and childish, his habits whimsical, and his temper irascible, capricious, and exacting. His general health is good. The other half-brother is forty-seven years old. He has been troubled for some years with an increasing infirmity of the right upper extremity. This consists of a steady withering of the shoulder and arm, and a progressive loss of strength in them. The fore-arm and hand seem to be nearly as well developed and as strong as ever. The affected parts are now extremely shrunken, and the man is unable to raise his arm from his side or place his hand on his head. He has never sustained any injury of the parts, nor experienced more than a dull, aching pain,—which he considers rheumatic,—in them. His general health is good. The patient herself has been married sixteen years. She has never borne a child at full term, and in all probability has never been pregnant. She thinks, however, that pregnancy may have occurred soon after her marriage, for at that time there was a brief interruption of her menses. With this single exception menstruation has been regular, and in other respects normal, up to within a period of five years; but during the last five years it has been

scanty, painful, of too frequent occurrence, and the discharge has been watery. Ordinarily the menses appear every two or three weeks, continue an hour or two, then disappear for a day or two, and again appear for a few hours. Up to the time of her marriage our patient enjoyed excellent health, and, indeed, she was exceptionally robust and vigorous. She worked extremely hard, as a farm-laborer during the spring and summer months, and as a domestic during the winter. To chop two cords of wood in a day was an ordinary task for her. A year after her marriage she became very sick. She was not confined to her bed, although she had constant and very severe pain in the lower part of the abdomen, and in the back, for many months, and was under medical treatment all the time. There was no urinary distress, but there was great intestinal disturbance from the beginning, and it has continued, excepting a brief interruption soon to be noted, up to the present time. This disturbance has consisted, for the most part, of obstinate constipation and uncontrollable tenesmus. The patient would go on indefinitely without a spontaneous movement of the bowels, although she would strain for hours in vain endeavors to secure an evacuation. Under these circumstances there was generally a small discharge of mucus and blood. One of the most persistent and distressing symptoms that has been presented has been a sensation as if a solid body were lodged in the rectum, and during the tenesmus were wedged tighter and tighter into the bowel. When, by the use of cathartics or enemata, an evacuation was obtained, it was noticed that the volume of the feculent mass did not exceed that which was natural for a small child. The constipation became more and more unyielding, and the tenesmus more and more distressing and continuous as the years passed. During the year immediately preceding August, 1879, the passages were not larger in circumference than a lead pencil, and they were voided with almost infinite pain and straining. The backache and pain in the hypogastrium continued uninterruptedly, the menstrual irregularity became confirmed, and an abundant leucorrhœal discharge appeared and has continued. These symptoms increased in severity up to August of last year. The patient came under my notice in the February preceding. She had previously been under the professional care of my colleague, Prof. Jewell, and she was referred by that gentleman to me for the treatment of an intercurrent attack of pneumonia. From this disease good recovery was made, although the suffering and danger was in no small degree increased by the aggravation of the pelvic symptoms. During and after convalescence, these symptoms were more harassing than ever, and the patient put herself under my treatment for their relief, preparatory to resuming the special treatment which my colleague had instituted. On examining the pelvic viscera I discovered retroversion of the uterus and

cervical abrasion. Nothing more. Under appropriate treatment the abrasion healed and the uterus was restored to its normal position, but no relief came to the distressing symptoms. On the contrary, the straining became more incessant, the discharges smaller, and the bowels more constipated than they had been. An examination did not reveal any stricture. I had examined the patient for this before. There was no stricture. Decidedly befogged, I dallied with antispasmodics and anodynes for a couple of weeks. No relief. Then, with a conviction that a cause existed either within or just above the pelvis which had not yet been discovered, and which would account for the continuance of the rest-destroying symptoms, I instituted a thorough exploration of the parts. A cause was found. It appeared to be a tumor somewhat larger than a hen's egg, and as hard as bone, which was located just above the left wing of the sacrum. It was movable. It was in the rectum. The following day the patient was etherized with a view to removing the supposed tumor. Stretching the sphincter ani well, I introduced my hand into the rectum and found just above the rim of the pelvis a hard mass, almost immovably imbedded in a pouch, which it had made for itself in the wall of the bowel. It was removed without much difficulty, and proved to be an intestinal concretion,—not a mere ball of hardened feces, but a real concretion as hard as a stone. The structure was not made out, for reasons. After the mass had been cleansed by my assistant, Dr. Caldwell, that gentleman put it out doors in a sunny place to dry, and an insatiate dog made away with it. It was a rare specimen, however, the finest I have ever seen from human intestines. From this time the patient rapidly improved, the tenesmus and constipation left her almost altogether, and for the last year she has enjoyed greater freedom from suffering than she had known for thirteen years before. Her general health, which had been very much impaired, is now measurably restored. She passed from my care six or seven months ago, and I had not seen her till yesterday. Now she informs me that she is beginning to be troubled with tenesmus again. But all this, though interesting and instructive, has but little connection with the disease for which the lady was treated by Prof. Jewell, and for the elucidation of which I now present her to you. She gives a plain history of family tendency to disease of the nervous system, and an equally plain history of excessive physical toil. For some years back, symptoms of far graver significance have been developing than any that have yet been described, symptoms of some obscure form of disease that is slowly and steadily changing the form and impairing the usefulness of the organs of voluntary motion. The disorder dates back in an obscure way twelve years. At that time the patient experienced dull heavy pain in the left side of her head, which continued for ten days or two weeks. At first it was

attended with drumming sounds in the left ear, and impairment of hearing, and, when it finally disappeared, the patient found that she was quite deaf in that ear. Aside from the continuance of the deafness, and the pelvic symptoms referred to, nothing of note transpired for five years. Seven years ago, however, the lady noticed a peculiar feeling, which she calls "deadness," in the ring and little fingers of both hands, but mostly in those of the left hand. These fingers were exquisitely sensitive to cold. In the morning they appeared to be perfectly normal, but if they touched anything cold,—just touched it for an instant,—they would at once become pale, cold, powerless, and painfully cramped. Heat and friction promptly relieved this condition, as a rule, but it was always followed by purplish discoloration of the parts and a feeling of numbness in them. This was no mere casual manifestation. It forced itself upon the patient's attention by invariably appearing when the circumstances were such as have been referred to. Aside from this source of annoyance,—amused curiosity rather than annoyance,—no disturbance of the nervous or muscular system occurred for about two years. Five years ago, however, the lady noticed, while peeling potatoes, that the movements of her hands were restrained,—that it was difficult for her to manipulate the potato with the one hand, and to guide the knife with the other. The left hand was especially at fault, and the awkwardness of the members was associated with peculiar sensations of itchiness in the very ends of the fingers. Soon after this she began to have pain in the parts, dull and aching in character, and aggravated by pressure and movement. Then she noticed an unusual degree of prominence of the tendons in the palm of her hands,—more in the left hand,—and an uncontrollable tendency to the flexure of the fingers. A little later, wasting of the ball of the left thumb was discovered, and then of the right thumb, and this wasting was attended with impaired mobility of the parts. Vague pains of a dull aching character now occurred in various parts of the body, especially in the left shoulder, the left anterior aspect of the chest and the left side of the back of the neck. The pains were more or less continuous and so intense as to destroy all rest. The process of wasting has continued in the hands, but from the beginning it has been further advanced in the left than in the right. Now, you observe that the left hand is more or less claw-shaped—it is much emaciated, the flexor tendons are unduly prominent and the fingers are flexed. You see that the normal convexity of the ball of the thumb has disappeared, likewise the hypothenar projection, and that, from wasting of the interosseous muscles, the metacarpal bones stand out with almost skeleton-like distinctness. The movements of the fingers and thumb are awkward and feeble, and the patient is unable to grasp or to hold small objects. The right hand is in very nearly the same condition, but the emaciation and the contrac-

tion have not reached the same degree of development. The forearms and arms are small and soft, but they preserve their normal contour. You will observe, however, that the left shoulder is wasted and that the patient lifts her arm from her side slowly and with difficulty. When she attempts to do this her shoulder becomes painfully cramped. Notice also the singular deformity of the back of the neck and the limited range of movement of the head. This is occasioned, apparently, by the wasting of the left complexus, splenius and trapezius muscles. The left anterior aspect of the chest is decidedly emaciated as compared with the opposite side, and the left shoulder blade is unnaturally prominent. This appears to be due chiefly to wasting of the left pectoral and serratus muscles. The patient has experienced more or less pain in these parts, and at times the pain has been very severe. It is always aggravated and it acquires a peculiar cramping character whenever she sneezes or coughs hard. Furthermore, she informs us that when she laughs heartily, or uses her voice in talking, singing or reading aloud, she is very soon overcome with feelings of intense weariness in the left side of the thorax, together with a feeling of need of more air. Her voice is changing—it is losing its compass. She was formerly a good singer, but now she cannot control or modulate the tone. This is probably due to involvement of the laryngeal muscles in the widespread process of wasting.

(Continued.)

OFFICIAL LIST of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 13, 1880, to April 28, 1880.

Moore, Jno., major and surgeon. Granted two months' extension of his present leave of absence. S. O. 90, A. G. O., April 23, 1880.

Hall, J. D., captain and assistant surgeon. Assigned to duty as post surgeon at Fort Randall, D. T. S. O. 42, Department of Dakota, April 13, 1880.

Winne, C. K., captain and assistant surgeon, when relieved by Assistant Surgeon Corbusier, to comply with Par. 1, S. O. 74, C. S., A. G. O. S. O. 32, Department of the Platte, April 13, 1880.

Ainsworth, F. C., captain and assistant surgeon. The operation of so much of Par. 1, S. O. 74, C. S., A. G. O., as relates to him, is suspended until September 1, 1880. S. O. 63, A. G. O., April 22, 1880.

Merrill, J. C., 1st lieutenant and assistant surgeon. Relieved from duty at Fort Shaw, M. T., and assigned to duty as post surgeon at Fort Custer, M. T., relieving Assistant Surgeon L. S. Tesson, to enable him to comply with S. O. 74, C. S., A. G. O. S. O. 42, C. S., Department of Dakota.

Corbusier, W. H., 1st lieutenant and assistant surgeon. Relieved from duty at Camp Sheridan, and assigned to duty at Fort Washakie, Wyo. T. S. O. 32, C. S., Department of the Platte.

So much of Par. 1, S. O. 74, April 3, 1880, from A. G. O., as relates to Assistant Surgeon F. Meacham, is revoked, and as relates to Assistant Surgeon W. C. Shannon, is suspended until October 1, 1880. S. O. 87, A. G. O., April 20, 1880.

Chicago Medical Gazette.

PUBLISHED ON THE 5TH AND 20TH OF EACH MONTH.

OFFICE OF PUBLICATION, 70 MONROE STREET.

TERMS, \$2.00 A YEAR, IN ADVANCE.

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Editorials under the heads of the special departments may generally be accredited as indicated above.

VOLUME I.

CHICAGO, MAY 20, 1880.

NUMBER 10.

PRACTITIONERS' COURSES.—Hitherto the policy of medical colleges has been poorly calculated, it seems to us, to encourage physicians to leave home and business for the purpose of attending the courses of instruction that are ostensibly designed for their benefit. There are many practitioners who, not content with the meagre attainments with which they entered upon the duties of their calling, and unable, from lack of time or means, to keep pace with the progress of science, would, undoubtedly, be glad to avail themselves of the advantages which a well-arranged post-graduate course would give. There is a demand for such courses, and the practice of giving them should be general. They would not only be of direct advantage to physicians by affording opportunities and stimulating a desire for improvement, but they would be of general advantage in compensating for the prevalent deficiencies in medical education, and in raising the general standard of attainment and appreciation.

It may be that the various faculties of the colleges are reposing in the belief that all that is necessary to be done in this direction has been done. They have certainly been lavish enough in times past of seductive advertisements, but these, for some reason, are losing their seductive power. It is a serious matter for a doctor to leave his business for a month or more, and no ordinary consideration will induce him to do it. If, however, he could be made to feel that he cannot afford to stay at home and let good opportunities for advancement in learning go unimproved, he will regard practitioners' courses with a very different feeling from what he now does. He has learned well the lesson that the conventional term "post-graduate" means, in reality, post-prandial; that the instruction then given is given by a "spring faculty;" and that it consists for

the most part of the crumbs which were left over from the regular winter session. So in relation to "practitioners' courses," he has learned that they consist of the inestimable privilege of listening to the attempts of the professor to make his lectures equally entertaining and profitable to the mixture of first, second and third years' students in attendance. Indeed, so far as our information extends, no course of instruction has ever been given in this country, up to this spring, which had been intended and prepared exclusively for physicians—college announcements to the contrary, notwithstanding. Yet, there is unquestionably a demand for such courses. To be successful, however, it will not do to arrange them on the basis of the assumption that the needs of an old doctor are the same as those of a raw student. The courses should be specially prepared; they should be given at a time when physicians are best able to leave home—say in May or June; they should be short, practical, and demonstrative, and embrace all the important recent innovations in medicine and surgery. These remarks seem to be justified by the recent experience of the Chicago Medical College. The institution has just concluded its first bona fide practitioners' course. The course was attended by about forty physicians, two of whom were old graduates of the college. The class contained representatives of nine States. The instruction consisted of didactic and clinical lectures, anatomical and surgical demonstrations, personal instruction in quantitative and qualitative urinalysis, in the use of the microscope, etc., etc. The subjects, clinical and didactic, were selected with special reference to the supposed needs of physicians, and wherever a fact could be demonstrated it was done. The recent advances in general medicine and surgery, in neurology, ophthalmology,

gynecology, obstetrics, etc., were fully presented. The course lasted a month and consisted of about one hundred and fifty lectures, exclusive of dispensary instruction. As would be naturally expected, the attendants were good, active, representative men, of the class that knows no stand-still in the matter of fitting themselves for work. They were extremely well pleased with the course, and on its completion their enthusiasm culminated in a series of commendatory and eulogistic resolutions. The course was a success, and it will, undoubtedly, be continued. It will now be in order for some Eastern college to lay claim to the origination of this new departure.

HONORS TO THE PROFESSION.—A bill has been introduced in the California legislature to prohibit the payment by druggists to physicians, and, by implication, the acceptance by physicians, of a percentage on receipts from prescriptions. In other words, a bill to prohibit the two professions from picking the pockets of their patrons. It is a very gratifying exhibition of the esteem in which the medical profession is held in California, and suggestive of what we are coming to in Illinois. The Pacific Slope is probably not the birth-place, and is certainly not the dwelling place of "Ways that are dark and tricks that are vain," for there are those in Chicago who, being unable to subdue their instincts as sneak thieves, are just as poorly qualified by their habits of rapacity to serve as models of propriety and honor, as any in California. Such persons are not to be put down by any prohibitory law. They have known, all along, that their practices are contemptible, and the fact that they take pains to conceal them testifies that they would be ashamed to have them exposed. Their exorbitant greediness of gain triumphs over their sense of decency now, and it would do so then, while the proverbial "honor among thieves," which now protects them from exposure, would then acquire more binding force. We are unable, therefore, to see any advantage to be derived from the passage of the bill, unless it be to arouse the profession to active measures of self-purgation. The humiliating part of this affair is the fact that some of those who stand highest in the profession, and who in other respects are regarded as exemplars, have secret understandings with druggists by which both may wax and grow fat at the expense of patrons. We know such to be the case. And these very men who, according to ordinary conceptions of justice are deserving of criminal prosecution, sit in judgment on the frailer members of the profession and vote them unfit to be

associated with because, perhaps, they advertise or commit some other little impropriety! Let us hope that the profession of our own State will not wait for the laity to take measures of protection against the dishonesty of their confidential advisers, but that it will guard its fair name by summarily expelling from its ranks, not only those who habitually steal cases, but also those who are known to be in collusion with druggists to rob the sick.

A NEW ANÆSTHETIC.—In the Chemical News of April 2, of the current year, Mr. W. Bowman Macleane is reported to have introduced a new anæsthetic to the members of the Odonto-Chirurgical (Dental?) Society. This new nerve-stiller is a combination of ethylen-dichloride and ordinary nitrous oxide, the laughing gas of the deluded public. The ethylen-dichloride is placed on a sponge in the tube through which the nitrous oxide passes. Only a small quantity of the former is required. Anæsthesia results in from a minute to a minute and a half, and lasts from one and a half to two and a half minutes. The sensation is said to be more profound and agreeable than when nitrous oxide is used alone. Mr. Macleane had used the anæsthetic sixteen times without any unpleasant resulting symptoms. In only one case was there stertor. The pulse was slightly accelerated, but strong, while there was a complete absence of lividity, so repulsive to the onlooker. The muscular system also, instead of the rigidity characteristic of anæsthesia from nitrous oxide, was, on the contrary, quite relaxed, thus greatly facilitating the manipulations of the operator. The society resolved to experiment with this mixture.

It may be of interest to those who have not already investigated the subject to know something more of the substance, which, according to the above report, bids fair to prove of great utility in minor surgery. Ethylen-dichloride is composed of carbon, hydrogen and chlorine, in the following proportions: C_2 , H_4 , Cl_2 . It is a colorless liquid, having a specific gravity of 1.271 at a temperature of zero (centigrade). It has a pleasant ethereal odor and a sweetish taste. It boils at 85.5° (C.) It is easily soluble in ether and alcohol, but insoluble in water. Passed through a red-hot tube, it is decomposed into carbon, hydrochloric acid and carbon dihydride. It burns with a bluish green flame. A solution of potassium hydrate in alcohol converts it into ethylen-monochloride by abstracting hydrochloric acid. Ethylen-chloride is obtained by the direct action of chlorine on olefiant gas, and also by treating alcohol with chloride of phosphorus.

MOTOR AND SENSORY CELLS.—Dr. E. C. Spitzka, in the *Journal of Nervous and Mental Diseases*, for April, when speaking of the cells in the motor regions of the nervous centers, makes the following remarks in an appended note, which is worthy of quotation: "In this direction a gross error has been committed, and is repeated every day; one for whose origin the French anatomists, particularly Luys, are largely responsible; while to Charcot and his followers we owe its dissemination. They have stated the large cells to be motor, and, per contra, the small cells to be sensory. Now, I can show that very small cells are found in unquestionably motor nuclei (origin of third pair), and very large ones in patently sensory centers, such as the ganglion geniculatum externum. So that any differentiation of nerve cells, as to function based on dimensions solely, is fallacious. It has been also predicated, as characteristic of the motor cell, that it is richly multipolar; but there are on the one hand richly multipolar cells in the sensory nuclei, such as the auditory, and on the other we find that undoubted motor cells in very low vertebrates have few processes. So that this line of demarcation must be overturned. So far there is but one character which I should be willing to predicate for the so-called motor cell, namely, that the transition from the body to the processes is so gradual that it is difficult to say where the body ends and the process begins, while in unquestionably sensory cells the transition is always abrupt. Viewing the question in the abstract, there is no a priori reason why sensory elements should differ from motor ones. Comparing a large number of sensory with motor cells, we may say that the character above given seems to be the only one on which an anatomical differentiation can be based; exceptions there seem to be, but not in the case of any cells whose physiological rôle is clearly established."

This distinction of the motor pyramidal cells and the more globular sensory cells, as here stated, is worth remembering. It is probable, however, that, as a rule, the motor cells are larger than the sensory, and the opposite is not stated by Dr. Spitzka.

THE ARCHIVES OF COMPARATIVE MEDICINE AND SURGERY is a new quarterly journal devoted to diseases of the lower animals, and particularly to those of the horse. Each number will contain about 60 pages of finely printed and well illustrated matter, and the ablest European and American writers will contribute to them. We regard the appearance of such a book, under such favorable auspices, as indicating the dawn of a new era in veterinary pathology and therapeutics, and we predict that it will be found of great value to students of human pathology.

BREAD.—Anything which concerns the purity of bread is not only of interest to the physician, but also to the public at large. Fortunately our land is so rich in breadstuffs that adulteration is not particularly profitable. Nevertheless, adulterated or injured flours and meals are often thrown on the market. Musty flour, or flour that has become spoiled by any means, can often be dried, mashed and sifted until it looks as good as new. But such flour, evidently, is unfit for use. Happily it can be easily detected by the following (Vogel's) process: A small amount of the suspected flour is treated with a solution of aniline violet. The starch granules are then examined with a microscope. In good flour the granules are either not colored at all, or, at most, only a few of them. In musty flour, however, nearly all the starch grain will be found deeply colored.

A few good microscopes and a few competent public analysts would soon make the dealer in spoiled breadstuffs quite uncomfortable. But it is especially when flour has been sent across the sea that it becomes subject to this incipient disorganization. And we will continue to hope that it will be many years before we have to import our bread.

THE PHILADELPHIA MEDICAL TIMES says that a correspondent writing from the famine districts of Ireland, claims to have seen "Hundreds of children from the age of two to twelve, with hair on their skinny arms and cheeks fully one inch long, a false growth caused by decay and hunger."

This is interesting in connection with the query raised years ago, and not satisfactorily answered, as to whether any one had seen a bald-headed consumptive. Does inanition really influence hair growth, and are the dermal derangements, the thickening of the finger nails and the luxuriant hair of phthisis dependent on the same conditions?

DR. M. CHARLOIS, of Sumatra, reports (*Viertel Jahresschrift für Dermatologie u. Syphilis*, No. 4, 1879,) two cases of syphilitic serpiginous ulceration of the foot, treated after a somewhat novel method. After failure to produce improvement with large doses of iodide of potassium, associated with the topical use of mercurial ointment and the occasional application of nitrate of silver, the following treatment was adopted: The ulcers were penciled with tincture of iodine, and directly afterwards covered with a layer of mercurial ointment. A sensation of heat followed, lasting, however, only a short time. Within a week the ulcers healed in both cases. The author thinks the rapid and favorable results due to iodide of mercury forming at the point of application and acting on the tissues in its nascent state.

PEPTONE INFUSION.—It is now about one year since Dr. Mundé reported a case of intravenous injection of peptone before the Obstetrical Society of New York (April 1, 1879). The operation was the outgrowth of some physiological experiments made by Dr. Geo. B. Fowler, of New York. Justly dissatisfied with the transfusions of milk recently practiced, Mr. Fowler proposed to inject into the veins the same material as results from the natural digestion of all albuminoids. He experimented upon animals with peptone formed by the digestion of meat in artificial gastric juice. The degree of concentration was such that one cubic centimeter of the fluid represented two grams of digested beef. This fluid was found to be tolerated by rabbits and cats without evil consequences, both by subcutaneous and intravenous injection. Deprived of other food the animals did not seem to lose in weight or health during the week they received the peptone. No excretion of it or of albumen occurred in the urine.

These experiments, though well conducted, did not cover the ground fully. In order to determine the nutritive value of the peptone injections, systematic weighing of the animals and analysis of the urea is necessary, and this does not appear to have been done. It ought to be remembered in this connection that Panum could not prevent starvation by repeated transfusion of blood. Nevertheless, transfusion of peptone was successfully practiced by Drs. Fowler and Mundé in a case of acute anæmia, due to repeated and finally excessive hemorrhage from a uterine cancer. When the patient was nearly exhausted the warm peptone solution was allowed to run into a vein. Altogether about two and a half ounces were used. The immediate effects were as alarming as in any case of blood transfusion. The patient complained of a feeling of distension of the head, of beating of the heart, and finally of great depression. No dyspnoea, however, occurred. The operation was followed by fever (T. 101°), but the patient rallied well the following morning. Some of the solution which had accidentally entered the subcutaneous tissue, was absorbed.

It would be unjust to deny in this case all beneficial influence of the transfusion, but its exact effect is difficult to appreciate. The peptone is, of course, no substitute for blood corpuscles. Whenever their number is insufficient for aëration, nothing but a transfusion of blood itself can be of service. As regards the nutritive influence of the peptone, at least its immediate effect, our knowledge is as yet too imperfect to make it possible to express a positive opinion. The direct effect of the transfusion

can, perhaps, best be called stimulating, although it is by no means certain whether it is due to the peptone itself or to the indifferent fluid in which the latter is dissolved. It has lately been shown by Kronecker and Sander, that dogs bled to the extent of about one-half their entire quantity of blood, will recover on receiving an intravenous injection of a solution of Na Cl (0.6%) and H Na O (0.05%) (Berliner klin. Wochenschrift, 1879, No. 52.)

The use of peptone for intravenous injection appears in a somewhat different light from recent researches of A. Schmidt-Mülheim, made in the Leipzig physiological laboratory (Archiv für Physiologie, I. and II., 1880, page 33). This investigator had convinced himself in previous experiments, that, contrary to the statements of Brücke, albuminoids are actually absorbed from the stomach and intestines in the form of peptone—at least the greater portion of them. Following the peptone during and after its absorption, he found that it entered only the blood vessels, and not the lacteals, for it could not be discovered in the chyle, while it was readily detected in the blood. During abstinence, however, no peptone exists in the blood. On injecting different quantities of peptone into the vessels it was found to disappear completely within a period of sixteen minutes. It is not excreted in the urine, for the renal secretion will stop altogether from the effect of the peptone on the blood-pressure. It is not removed by the liver, as ligature of the hepatic vessels does not prevent its disappearance. Since it has recently been shown that peptone, when heated dry to 160° C., is reconverted into coagulable albumen, the author looked for increase of the latter, but could not find any change in the quantitative composition of the blood. He was hence unable to learn what became of the peptone, notwithstanding that this substance mixed with blood from a vein, does not change.

Although the peptone can no longer be found in the blood a short time after its introduction, a certain effect of it remains for at least an hour. Blood drawn within that time does not coagulate, while blood drawn somewhat later does coagulate, though feebly. Thus fluidity of the blood could be produced by small quantities of peptone, three to five grams sufficing for a medium-sized dog. The non-coagulable blood was allowed to stand. No change occurred until putrefaction set in, but then feeble clotting began. Clotting could also be induced at once on adding fibrin-ferment. An interesting observation is the fact discovered by the author, that the place of the fibrin-ferment could be filled by putrid albumen.

The author does not hesitate to call peptone a feeble poison, since it not only prevents the clotting, but it also reduces the blood-pressure to an enormous extent. While it is indeed the substance into which most of the albumen is converted before entrance into the blood, it is absorbed very gradually, and vanishes almost as fast as it appears. If a large quantity is injected at once (three to five grams) the manometer shows a decided sinking of the blood-pressure lasting many minutes. On account of the distension of the vessels the abdominal organs appear congested; the animal is at the same time drowsy and its muscles are relaxed, a condition resembling, it strikes us, the effects of a hearty meal. From a sufficient quantity of peptone the blood pressure may even sink low enough to cause death.

EUCALYPTUS GLOBULUS.—The eucalyptus preparations have suffered many vicissitudes in the past few years; first, the tincture fell into disfavor as a worthless form of the drug, next the fluid extract was found unreliable, and the dried leaves in powder or infusion were tried as affording the surest means of medication. We alluded in a previous number to Dr. Rudolph, in *Gazzetta Medica Italiana*, having used the eucalyptus as a rapid cure for coryza by administering an infusion of the green leaves and twigs. Dr. J. H. Hill writes to the *British Medical Journal*, from California, that the globulus is the only reliable medicinal species, and that the aromatic emanations from its leaves and the draining power the plant possesses has accomplished wonderful changes for the better in malarial districts on the Pacific coast. Garibaldi planted this variety in the Pontine marshes, and in Algeria and Corsica millions of trees have been set out in the last few years, resulting in decidedly diminishing the severity and extent of intermittent fevers thereabouts. In Tasmania the fresh leaves are used as a febrifuge and anti-periodic, and the claim is there made that the natives experience as good effects from their favorite leaves as other nations derive from quinine. However this may be, it is evident from conflicting testimony that a better form of eucalyptus is needed in medicine. The camphoraceous volatile oil or essence of the leaves, eucalyptol, now comes forward as claimant for all the virtues of the tree with none of its unreliableness. Dr. B. Bevens, Jr., of Philadelphia, will soon publish his investigations upon its physiological action. Dr. Bauer, of St. Louis, according to the *Clinical Record* for May, expresses himself pleased with the eucalyptol left with him for trial by Sander & Son, of Sandhurst, Australia. Heretofore a preparation from the eucalyptus amygdalina, made by Schim-

mel & Co., of Dresden, and called eucalyptol, has given about as satisfactory results as so much turpentine, which it resembles strikingly. Dr. Clevenger, in 1875, planted varieties of the eucalyptus, such as siderophloia (red iron bark), longifolia, hemiphloia, fissilis (messmate), amygdalina, actrecomis, obliqua, bicolor, dealbata, paniculata (white iron bark), and rostrata, and concluded that globulus alone would yield any satisfactory medicinal preparation. The leaves afford the volatile oil, and Clevenger claims to have used the globulus eucalyptol with very gratifying results as an external application in acute and subacute rheumatism. Maisch & Stillé, in the *National Dispensatory*, laud this essence of the leaves as affording the most eligible eucalyptine drug.

WE HAVE A LAW in this State providing that if any druggist or other person sells or gives away any arsenic, strychnine, corrosive sublimate or prussic acid, without the written prescription of a physician, he shall be fined \$50. Yet aside from the numberless patent nostrums containing these poisons, they are dispensed direct without such prescriptions. Probably no law will ever supply the want of a better diffusion of knowledge among the people to save them from the consequences of ignorantly using poisons to their own injury.

THE MAY MEETING of the Chicago Biological Society was held at the Tremont House on the 5th instant. Cases of exophthalmic goitre were exhibited and discussed, several cases of poisoning were narrated. The next meeting will be an interesting one, as Mr. Charles H. Wilson, Chief Electrician of the Western Union Telegraph Company, will read his thesis on an artificial retina. This gentleman invented an induction machine which he described before the London Society of Telegraph Engineers. His paper on that occasion induced much discussion and was warmly applauded.

DR. PAYNE, lecturer on dermatology in the South Side Dispensary, encountered a case of indigestion which had defied all attempts toward cure. The doctor associated the mental condition of the patient, who was laboring under business apprehensions, with his gastric troubles and by the judicious use of bromide of potassium, relieved both the mental and alimentary difficulties of his excitable client.

OUR MOUNT VESUVIUS letter on the relations of the doctor and pharmacist, finds favor in a variety of quarters, judging from several medical journals having reprinted the article, entire.

DIAGNOSIS OF BRAIN DISEASE.—The April number of the *Journal of Nervous and Mental Disease* contains an extremely interesting and able review of Nothnagel's work on "The Local Diagnosis of Cerebral Diseases—a Clinical Study," of which we present the following abstract: The opinions of Prof. Nothnagel are fairly embodied in the conclusions with which he ends the discussion of the symptomatology of the lesions of each particular region of the brain. The first part considered is the cerebellum:

1. **CEREBELLAR AFFECTIONS** may remain latent and defy diagnosis. This is regularly the case with permanent or destroying lesions located in one hemisphere.

2. Space-limiting lesions may, on the other hand, produce manifold and complex phenomena.

3. As characteristic of cerebellar disease, we reckon only disturbances of co-ordination, especially a reeling gait with vertigo. These symptoms are also present in other central nervous affections, and cannot, therefore, be regarded as pathognomonic. The presence of cerebellar disease must be assumed from the sum of the positive and negative symptoms.

4. Cerebellar reeling always indicates a functional implication of the middle lobe, whether this be the original seat of the disease, or whether it is only embarrassed by crowding or pressure.

5. Disorders of co-ordination and vertigo may be wanting where the disease is located chiefly in the hemispheres, and, exceptionally, they may be wanting when tumors of slow growth are localized directly in the vermis. If an affection situated in the posterior cranial region, below the tentorium, is suspected on other grounds in those cases, the diagnosis of original or secondary disease of the cerebellum can only be approximative. It cannot be proved.

6. Aside from those noted under head 3, no symptoms are at present known that can be considered as expressive of disorder of the cerebellum functions. Perhaps certain disorders of speech (anarthria (?)) in extensive atrophy of the cerebellum may be so considered, but this is not certain.

7. Vomiting, when continuous and severe, may support the diagnosis of cerebellar disease, but it is not conclusive since it occurs in other cerebral diseases. It is absent altogether in destroying lesions, and is by no means regularly present in crowding lesions.

8. The same is true of amblyopia and amaurosis, respectively, choked diet and optic neuro-retinitis.

9. Headache is present only in cases of crowding or pressure lesions. Its fixed locality in the occipital region under certain circumstances may suggest cerebellar disorder, but is no more conclusive in this respect than its location in the frontal region would be in an opposed sense.

10. The most various disturbances in the functions of cerebral and spinal motor and sensory nerves

may attend cerebellar disease, but only in case of pressure lesions. They have, therefore, no diagnostic value, but are liable to mislead. Nevertheless, sometimes, some one symptom may be isolated, which will permit a closer local diagnosis. Thus, complete right-sided paralysis of the whole facial indicates that the tumor is on the right side, and pronounced hemiplegia indicates that it is on the under surface. But positive conclusions must be guarded against.

11. Psychic disorders are absent except under circumstances as may develop them in any lesion of the brain.

12. The author, in contradistinction to Hughlings Jackson, holds that tetanus, either of the neck or of the whole body, is not of any value in local diagnosis. * * * *

CRURA CEREBELLI.—As regards lesions of these parts, he concludes that only those of the medium crus to the pons afford a symptom that is at all diagnostic. It consists in a peculiar deviation of the eyes, the one downward and outward, and the other upward and inward, the body turned in the direction of the side toward which both eyes (apart from their direction in a vertical sense) are directed. Thus far, clinical observation has demonstrated these symptoms as attending no other lesions than those of the middle cerebellar peduncle. Other symptoms that may attend lesions of the cerebellar crura are conjugate deviation of the head, eyes, and body, vertigo, and inclination to fall to one side or the other. The conjugate deviations are sometimes toward and sometimes away from the side of the lesion—the cause of this discrepancy being unknown.

PONS VAROLII.—The diagnosis of local lesions of the pons varolii is treated at length. Recent hemorrhages into this part can be diagnosed with certainty only when the special cross paralysis is present, but it may be regarded as probable when the attack is accompanied with general convulsions and contraction of the pupils, and is followed by death within a few hours. The following are the diagnostic features:

1. Stationary intra-pontine destroying lesions may produce disorder of the function of the motor, sensory, and vaso-motor nerves of the extremities, and of the 5th, 6th, 7th, 8th (?), 11th (?), and 12th cranial nerves. Pressure lesions may produce symptoms indicative of implication of the 9th and 10th nerves.

2. The number of nerves involved varies according to the size and seat of the lesion, though it is not possible to say with certainty from the nerves involved what part (in cross section) of the pons is injured.

3. In many cases stationary lesions of the pons produce the same symptoms as some of those of the cerebrum, and cannot be distinguished from them.

4. Dys- and anarthria being more frequent with

lesions of the pons than with other localized lesions, except those in the medulla, point with a certain degree of probability to the former.

5. Tumors and destroying lesions of the pons have a peculiar character in the presence of alternate paralysis. This form, when present, the most important diagnostic mark, but it is not pathognomic, since it also occurs in basal affections. In the latter case, however, we have to do with slow chronic disorders. A sudden appearance of this symptom indicates almost certainly a lesion of the pons.

6. This alternate paralysis involves the motor and sensory nerves of the extremities of the side opposite the lesion and the trigeminus, abducens, facial (auditory?) and hypoglossus of the same side. Within these limits the extent of the paralysis may vary in different cases.

7. The paralysis of the extremities, motor as well as sensory (and vaso-motor?) is always contralateral to the lesion, but implications of the cerebral nerves, mentioned under 6, may be either on the opposite or on the same side.

8. Whether conjugate ocular paralysis of the external rectus on one, and the internal rectus on the other side, is characteristic of lesions of the pons, is still uncertain.

9. Though anæsthesia is more frequent with lesions of the pons than with those of the cerebrum, it is not of diagnostic value. As regards the implication of special nerves as of the abducens, if on the same side with the lesion of the brain, as shown by associated symptoms, it indicates almost certainly that the lesion is located in the pons.

10. Difficulty in swallowing and disturbances of respiration and circulation may be corroborative symptoms, but they are not fundamental.

11. Ataxia appears in exceptional cases of disease of the pons, and it would not, therefore, contraindicate their diagnosis as such. Its relative frequency in cerebellar disease, however, lessens its value as a symptom of pontine disease.

12. The various so-called impulsive movements, such as backward, pendulum movements of the members, etc., are only accidents, and therefore of no diagnostic value. Lateral decubitus, or moving or drawing to one side, have not been observed in man, except with implication of the crus cerebelli in the lesion.

13. Spastic phenomena limited to a single group of muscles are rare, and can assist the diagnosis only with a special combination of symptoms, such, for example, as trismus.

14. Epileptiform convulsions are not present in stationary lesions and tumors, but they have a certain diagnostic value in cases of recent hemorrhage and embolism.

15. Sensory phenomena are not among the probable symptoms of diseases of the pons, and as yet there have been too few observations as regards the

auditory nerve. Still the appearance of unilateral disturbance of hearing must be taken into consideration in forming a diagnosis. Contracted pupils, when present in an apoplectic attack, possibly point to the pons.

16. Vomiting, headache, and vertigo, are present in pressure lesions of the pons under the same conditions in which they appear in other portions of the brain. * * *

LESIONS OF THE MEDULLA can only be diagnosed with approximate certainty, and then, only, in a small number of cases. The most distinctive features are dependent on implication of the cerebral nerves, and the most important of them are dysphagia, aphonia, and disturbances of respiration and circulation. The paralysis may be either hemiplegic or paraplegic, but pronounced anæsthesia has not, as yet, been observed with these symptoms.

OF LESIONS OF THE CRURA CEREBRI, the author says, the characteristic symptom is paralysis of the motor oculi, usually involving all its branches, on the same side with the lesion, and opposite the paralysis of the extremities. This may also appear with basal lesions, but if the paralysis, both of the members and motor oculi is sudden and simultaneous, a lesion of the crus may be presumed. * *

DISEASES OF THE TUBERCULA QUADRIGEMINA are rare in medical literature, and only a few observations could be utilized for fixing the question as to local diagnosis. From these, the conclusion was deduced that disease of the anterior pair almost always is accompanied with impairment, or loss of vision. This symptom is not to be referred to the optic lobes necessarily, unless, with non-reacting pupils, it be of sudden appearance, and accompanied by other symptoms of local disease, and absence of posterior ophthalmic symptoms.

Lesions of the posterior are accompanied (not invariably) with paralysis of (certain branches?) the motor oculi, but the presence or absence of this symptom is not sufficient for diagnosis. The paralysis may be bilateral with an unilateral lesion, and in this case, if unattended with paralysis of the members, it suggests the optic lobes as the part involved. Disorders of equilibrium and co-ordination like those accompanying cerebellar disease, are also sometimes observed. * * *

LESIONS OF THE OPTIC THALAMI exhibit the following symptoms:

1 and 2. An absolute diagnosis of isolated lesions is impossible at present, except under specially favorable circumstances, for the symptoms are ambiguous.

3. Motor paralysis does not support the diagnosis of thalamic lesions, and when it exists we must assume the implication of other parts, even though the thalamus be the part principally involved.

4 and 5. The same is true of anæsthesia. If disturbances of sensibility, dependent on injury of that

portion of the inner capsule which passes the thalamus, should occur, they might enable us to say that the lesion is situated near or in the thalamus, but they would not establish the existence of thalamic disease. The same is true of vaso-motor tracts.

6 and 7. Though disturbances of vision may occur, whether in the form of contralateral amblyopia or homonymous hemiopia, can not be stated, they are not of great diagnostic value since they also appear with lesions of other localities. The same estimate may be placed on the diagnostic value of hemichorea, athetosis and unilateral tremor.

8, 9 and 10. Increase or diminution of reflex excitability is not indicative of thalamic lesions, but, possibly, disturbances of the muscular sense and disorders of psycho-motor actions are.

In conclusion, thalamic lesions may be reasonably conjectured under specially favorable conditions, but they cannot be diagnosed with certainty. * * *

CORPORA STRIATA.—As most cerebral hemorrhages occur into these parts, the symptoms of lesions of them coincide pretty well with those of typical hemiplegia. Of late years the anatomy of the brain has been revised, and the corpora striata have been shown to consist of several physiologically distinct parts. More exact localization is now possible than was formerly the case. Our author studies separately lesions of six different localities in the striated bodies, viz.: Those of the lenticular nucleus; those of the caudate nucleus; those of the anterior portion of the internal capsule; those involving either the lenticular or caudate nucleus, with, at the same time, the anterior portion of the internal capsule; those of the posterior portion of the internal capsule; and those affecting only the lenticular nucleus or the optic thalamus, with the posterior portion of the internal capsule or the adjoining part of the radiant crown of Reil. His conclusions are as follows:

1 and 2. Destroying lesions of the corpus striatum may produce contralateral motor, sensory and vaso-motor paralysis, and if they be not extremely small they regularly cause motor hemiplegia.

3. If the lenticular or caudate nucleus alone be involved, the hemiplegia may gradually disappear; but if the internal capsule be affected, either alone or with the gray nuclei, the paralysis is permanent. In these permanent paralyzes (i. e., in lesions of the internal capsule) secondary contractures frequently occur.

4. The motor hemiplegia from stationary destroying lesions affects, regularly, both extremities of one side and the inferior branch of the facial, the muscles of the trunk usually being paretic. The hypoglossal nerve is either wholly unaffected or only affected in the beginning; it is not often permanent-

ly involved. In rare cases the extremities or the facial nerve (including its upper division) are involved alone.

5. Lesions of the lenticular nucleus cannot be differentiated from those of the caudate nucleus.

6. If the lesion be limited to the anterior portion of the corpus striatum (which is supplied by the lenticulo-striate artery) motor paralysis is the only symptom.

7. In some cases hemi-anæsthesia is associated with the hemiplegia. Besides the paralysis of common sensation, the nerves of sight, hearing, taste and smell may be impaired, though their impairment is not an essential part of the hemi-anæsthesia.

8. The hemi-anæsthesia indicates the implication of the posterior portion of the inner capsule with the adjoining foot of the radiant crown. Still lesions may exist in the posterior section of the capsule between the optic thalamus and the lenticular nucleus without causing anæsthesia.

9. Usually the motor and sensory paralysis disappear together, but exceptionally the former leaves and the latter remains.

10. Sometimes vaso-motor disturbances occur in the paralyzed members, indicating a lesion in the posterior part of the internal capsule.

11. Though hemichorea often accompanies anæsthesia, its relations to lesions of the parts of the corpus striatum already described cannot be stated.

CORTEX CEREBRI.—The conclusions deduced from an analysis of a large number of carefully reported observations are:

1. Disease of the superficies of the brain (the gray matter and the white medullary substance directly underneath it) sometimes causes marked phenomena and sometimes causes none.

2 and 3. Psychic disorders and dysphasic and aphasic phenomena point to cortical lesion. True, aphasia may occur without cortical lesion (in lesion of the centrum ovale), but these cases are so rare that the rule as stated may be accepted as the basis of diagnosis.

4. In purely ataxic aphasia the first locality to be suspected as the seat of lesion is the third left frontal convolution, but the possibility of a lesion of the insula must also be considered.

5. If, as appears probable from some observations, lesions of other parts of the brain may cause aphasia, it occurs so rarely that the location indicated must be first suspected. It is impossible from the character of the speech disorder to decide on the locality of the lesion.

6. Word-deafness indicates, most probably, a lesion of the left parietal lobe, particularly the third temporal convolution.

7. Hemiopia by itself is not conclusive evidence of cortical lesions. If it appear suddenly as the only symptom, perhaps after an apoplectic attack, with negative ophthalmoscopic appearances, it may be

regarded as presumptive evidence of such lesion, most probably in the occipital region.

8. Unilateral disturbances of vision may occur with cortical lesions, but nothing can be stated in regard to their value in local diagnosis. Hitherto, they have been observed only with diffuse cortical lesions.

9. Disorders of cutaneous sensibility have no diagnostic value for cortical disease.

10. The conjecture is offered, hesitatingly, that unilateral disorder of the muscular sense when it appears as the only symptom, perhaps indicates a lesion of the parietal lobes.

11. Motor disorders accompany cortical lesions, and under certain conditions they enable us to locate them.

12. Sometimes the paralysis takes the form of ordinary cerebral hemiplegia, such as is commonly observed with lesions of the striate body, and it may or may not be accompanied with secondary contractions. In such a case, diagnosis is impossible. The assumption of a cortical lesion would be supported if aphasia coëxisted, but even then the paralysis may be dependent on a lesion of the striate body, associated with one of the third frontal convolution. A single ptosis coëxisting with paralysis of the extremities, and of the facial and hypoglossal nerves, makes it probable that a cortical lesion is present. Pronounced disorders of sensibility occurring with motor hemiplegia, indicate either that the lesion is not cortical, or that if it be cortical it is very extensive and extends deeply into the medullary substances.

13, 14, 15. Cortical paralyses are frequently monoplegias, partial hemiplegias, isolated paralysis of the facial and hypoglossal, of the arm, rarely of the leg, of the arm and leg, or arm and face. When monoplegias exist, and their intra-cerebral origin has been established, they point, not with absolute certainty but with great probability, to a cortical lesion; though their precise form and development does not at all indicate this origin.

16, 17. Certain motor phenomena, as convulsions limited to certain muscular regions, and connected later with paralysis of the parts, are of great diagnostic value. They indicate with a high degree of probability the existence of cortical disease. In some cases, the clonic convulsions first make their appearance in paralyzed muscles, and in such the presence of a cortical lesion may be assumed.

18. In other cases the motor phenomena assume the character of an epileptic attack, but with this peculiarity, the spasms always begin in the same group of muscles. This form of convulsion always appears subsequent to a paralysis. It is presumptive evidence of cortical lesion. * *

Lesions of the remaining portions of the brain cannot, according to Nothnagel's conclusions, be diagnosed with certainty.

STRUCTURE OF THE BLOOD CORPUSCLE.—As microscopic appliances and knowledge increases, history repeats itself in the battle now occurring between Heitzman's and Curtis's disciples. Haller, in 1757, in "*Elementa Physiologiæ*," resolved the solid parts of animals and vegetables into the "fibre" and an "organized concrete." The fibre being to the physiologist what the line is to the geometrician "*Invisibilis est ea fibra, solâ mentis acie distinguimus.*" A reaction against the fibre theory took place in 1779, when Prochaska and others, down to the present century, adopted the views of Leeuwenhoek, who in 1687 announced the "globular" structure of the primitive tissues of the body. Huxley, Virchow, Bennett, Todd and Bowman, Beale and others, have finally elaborated the cell doctrine into its present more satisfactory shape, but another Haller, Dr. Heitzman, of New York, proposes to land us a century back by claiming the discovery of a trabecular structure for the cell. Dr. L. Curtis, of this city, repeated Heitzman's observations, and publishes his views in the *New York Microscopical Journal*, going to show that blood corpuscles have no trabecular or fibrous appearance, but are made up of very minute granules or corpuscles, which Heitzman has mistaken for fibres, just as the old test objects, such as diatoms and podura scales were at one time supposed to be striated, and are now known to have been so considered, because improperly observed.

NITRATE OF SILVER IN THE UTERINE CANAL, notwithstanding its dangers, is still employed and advocated by many who would profit by a consideration of a paper recently read before the New York Obstetrical Society, by Dr. Fordyce Barker. This paper and the discussion which followed shows that cicatricial tissue in the uterine canal resulting from cauterization, may impede labor and endanger the life of the mother and of the child. The general sense of the Society was very properly as follows: That nitrate of silver, nitric acid, acid nitrate of mercury, the actual canter and all other caustics have little, if any, place as topical applications to the uterus. That such applications, by causing induration and cicatricial contraction of the canal, are capable of producing not only complicated labor, but persistent and incurable dysmenorrhœa. The practice of leaving the solid nitrate of silver in situ was particularly condemned. The reckless and indiscriminate use of this article is dangerous.

BROMIDE OF ETHYL is obtained (De Vrij's process) by the action of sulpho-vinic acid on bromide of sodium or potassium. The product is often contaminated with ordinary ether.

EXCISION IN THE EARLY STAGE OF MORBUS COXARIUS.—Dr. Bidder gave, in the *Berliner klinische Wochenschrift*, No. 13, 1879, careful statistics, attempting to show the reason why the conservative method of treatment yielded such unsatisfactory results in all cases of fungous arthritis. He found that the reason was the distinctive character of the disease, at the bottom of which in many cases a tuberculosis of the joint might be discovered. He consequently could recommend, as the only sure method of cure, the removal of the diseased tissues by an early excision, and this so much the more, as no one up to the present time has been successful in the elimination of tuberculous foci, either by external applications or by the internal use of remedies. The above-stated considerations proved to be just in the two following cases, reported in the *Centralblatt für Chirurgie*, No. 48, 1879: I. A boy, three and one half years of age, who was troubled with morbus coxarius of the left side, with spontaneous posterior dislocation and fever in the evening. There were no swellings and no sinuses. The disease was of seven months' standing. Excision by posterior longitudinal incision was performed, the femur decapitated with bone scissors, and the great trochanter cut off by means of a strong knife. In the cavity of the joint, was found a little less than one gram of slimy pus. The thick layer of fungous granulations lining the articular cavity, was carefully removed, and the acetabulum deprived of its cartilage. In the neck of the femur was found a sequestrum of the size of a bean. The wound was dressed antiseptically. Healing by first intention did not occur, because an unskillfully applied bandage caused superficial gangrene of the skin of the knee. From this the wound became infected and suppuration set in. Nevertheless, in four weeks the whole wound was healed, with the exception of a small sinus, and the patient made his first attempt at walking on crutches. It was found necessary to scrape out this fistula. The healing of this wound delayed the recovery only four weeks more. Two months after the excision, the little patient was able to walk around without crutches on a free and movable limb. II. This patient was a girl, five years old, having the right hip joint diseased, with spontaneous posterior dislocation and fever in the evening, but no swelling or sinuses. The disease was of eight months' standing. Excision by posterior longitudinal incision, decapitation of the femur and cutting off of the great trochanter were performed. A little muco-purulent fluid was found in the joint. The inner surface of the articular cavity was covered with a thick layer of fungous granulation tissue. The antiseptic dressing and extension were applied. In ten days, after three dressings, the whole of the

wound was healed up from the bottom. Before the end of the fourth week, the patient was allowed to walk on crutches. Five weeks after the operation she could walk through the room without support. The newly-formed joint was movable in all directions.

The microscopic examination of the fungous granulations removed by the sharp spoon and scissors showed that in both cases the tissues were filled with miliary tubercles, almost all of which contained the typical giant cell. These two cases, especially the last, made so speedy and fine recovery that the author finds in this a corroboration of a statement formerly made by him, viz.: "A fungous morbus coxarius treated by excision in its primary stage may now heal up in as many days as it would take months to heal up by conservative treatment." Volkmann, who of late years has learned to consider early excision preferable in cases of this nature, in which he formerly preferred the conservative treatment, now reports similarly successful operations. The author agrees with Volkmann and König that a primary osteo-tuberculosis causes the fungous arthritis in most cases. Though in a number of these cases the diagnosis of fungous arthritis is not difficult to make, it would always be difficult, if not impossible to exactly locate the primary osteo-tuberculosis focus. This is the very reason why a successful local application of anti-tuberculous remedies, or agents for the chemical destruction of tubercle, is an utter impossibility. Parenchymatous injections of such remedies, for example, hardly ever reach the tuberculous germs. Consequently, the early excision in the fungous morbus coxarius has not yet been superseded by any better treatment. There may, of course, be some few cases in which a local scraping out without opening the joint may be sufficient, as in one successful case reported by Volkmann, but this procedure will be limited to those very rare cases in which the locality of the primary osteo-tuberculosis may be diagnosed exactly.

AN ITEM on "Poisoning by Robinia Pseudacacia (Honey Locust)," is circulating through the medical journals, the last place in which it caught our eye being in the *Philadelphia Medical Times*, of April 24th. The periodical named is edited by that versatile botanist and therapist, Prof. H. C. Wood. The item is probably correct, except that the poisoning was not from one of the articles if it was from the other. The names represent different vegetable species. Absolute accuracy is not attainable in all things, but it is eminently desirable in scientific nomenclature when that is attempted.

ALBUMINOUS URINE.—In a recent number of the *Lancet* is a paper by Sir Henry Thompson on the variable significance of the presence of albumen in the urine. He classifies albuminuria as follows:

I. If the urine be habitually clear, acid, and free from the faintest blood-tint, throws down to the test of heat and nitric acid a notable quantity of albumen, the source of that albumen is the venal circulation, and, if persistent, the case is almost certainly one of grave import, the presence of organic change in the kidney structure is to be inferred, and other evidence of its existence, if sought for, will probably be found.

II. Blood in the urine from any source will produce a considerable deposit of albumen. This, though sometimes grave, is not necessarily so, since it may proceed from a lesion which is slight and temporary in its nature.

III. Pus in the urine may and commonly does proceed from some local condition in the bladder and urethra. Nevertheless, albumen will be deposited on applying appropriate tests. It is evident that albumen resulting simply from pus has an import vastly less grave than that described under the first class of cases, since the lesion is always local, often temporary, and in an organ whose function is mechanical, not vital.

The practical point in the treatment of the patient having albuminuria is first to ascertain the source of the albumen. This will very commonly be found to depend upon catarrh of the bladder, not upon lesion of the kidney. If dependent upon local catarrh, its occasion should be ascertained. Usually the difficulty arises from the patient's inability to empty the bladder completely. The universally acknowledged cause, hypertrophy of the prostate, is the first in order of frequency. Other causes are not infrequent, such as defective action, due to simple atony, the result of over-distension with urine; thickened and incompetent muscular walls of the bladder from chronic inflammation sometimes associated with old stricture; and defective innervation from impairment of nerve centers. This last cause, in its nature and probable results, is most serious. In all of these conditions of catarrh, the bladder is to be carefully emptied by a soft catheter two or three times a day and gently washed out. This is the chief efficient remedy. Incompetence of the bladder is always to be sought for by physical examination. The introduction of a soft catheter immediately after micturition is the only reliable test, and it should be applied on two or three occasions before arriving at definite conclusions. A group of symptoms in men of advanced years, such as cloudy urine, passed with abnormal frequency and depositing adhesive, opaque

matter on standing, neutral or faintly acid reaction becoming alkaline by keeping, with dull pains in the pelvis and back, the necessity of greater effort to pass water than was formerly required, and a little breaking up of the nervous system, sustain a causative relation to incompetence of the bladder more commonly than is generally supposed.

SEWAGE.—Over population is not a graver subject to the scientific philosopher than what disposition to make of the sewage of large cities. This sewage poisons rivers and taints lakes. The waste and debris of life become the most prolific sources of death. The most promising of all the various devices which have been introduced for disposing of sewage is the one which uses it for irrigation and fertilization. Organic matter diffused over a large surface of soil is rapidly absorbed and oxidized without any appreciable taint being communicated either to the air or the drainage from the soil. Immense quantities of the sewage of Paris is thus disposed of at Asnières. It has both preserved the Seine from contamination, and converted a sandy plain into an almost tropical garden. A large spring is fed from this sandy soil, and the water is as sweet and pure as any spring water possibly can be. Not a trace of the deadly sewage from which it has come can be detected in it, either by sight, taste, smell or by analysis. The English government has been trying experiments with sewage, and the general result of these is a corroboration of the testimony of the irrigation method at Asnières. When the summer is very wet, however, as was the last one in England, the irrigation method naturally does not give such good results. With anything like a fair season, however, it can be depended on as the safest and most economical method of disposing of sewage.

Other methods of sewage treatment which have been experimented with are as follows: precipitation by alum and iron; precipitation by lime, and precipitation by clay. Often these methods have been used conjointly (*Chem. News*, 41, 1053). The general results show that after irrigation, precipitation by alum or by iron and alum give most satisfaction. In very wet weather such precipitation gives better results than irrigation. The experimental work on sewage is still in its infancy, and these results are subject to correction by subsequent experiment.

A METRICAL MISTAKE.—The *New Orleans Medical and Surgical Journal* says that the U. S. nickel five cent piece weighs a gram (15.4 grains) and measures a metre (one yard and 3.4 inches) in diameter. Reference to our advertising page iv, will show that the nickel weighs five grams and measures two centimeters in diameter.

CONTRIBUTIONS.

THREE CASES OF POISONING.

BY ROSWELL PARK, A. M., M. D., CHICAGO.

Read before the Chicago Biological Society, May 5th, 1880.

Case I.—Poisoning by Carbolic Acid—Fatal.—Mrs. M. L., aged 40. While in a condition of mental alienation patient had inflicted upon herself an incised wound of the neck and trachea, narrowly missing the important vessels. A few days after this, while still insane, she seized a bottle of 95 per cent. carbolic acid which happened to be at hand, and during the nurse's brief inattention took one or more swallows out of it. The quantity taken is uncertain, a little of it having passed out of the wound; but at least a drachm and a half entered the stomach. I saw her within five minutes, but she was then in a comatose condition, with stertorous breathing, pupils contracted and insensible to light, and profuse perspiration. Tartar emetic failed to produce emesis; lime water and olive oil were administered freely; but she never rallied, and died in three hours.

Coma supervened in this case more rapidly than usual; but a reason for it may be found in the pre-existing condition of the nerve centers. Contracted and insensible pupils, livid surface, coma and collapse are the usual features of fatal poisoning by this drug. Death seemed to have been caused by profound shock upon an exhausted system. No autopsy was allowed.

This case occurred over a year before the writer's attention was called to the efficacy of dilute sulphuric acid in such cases, otherwise this antidote would, of course, have been employed.

Case II.—Absinthe Poisoning.—I was called suddenly, on the night of November 5th, 1879, to see a young woman of easy virtue, who had been indulging pretty freely during the evening in stimulants (hot rum), and who had received unpleasant news from home. At 1 A. M. she took about two ounces of absinthe. It was the first time she had ever tasted it. Within a short time she had sunk unconscious into a seat. As I first saw her, an hour afterwards, she was almost totally unconscious, though she could be roused a little with great difficulty; extremities cool, pulse 96, and weak; pupils dilated and insensible to gas light. Her friends had been giving, or trying to give, ammonia, and were slapping her face and chest with cold, wet towels.

I at once gave ten grains of zinc sulphate in a little water, of which I do not think she swallowed more than half. This caused ineffectual effort at vomiting within three minutes. But it sufficiently aroused her to send her into a series of hysterical convulsions (to which her friends said she was subject), accompanied by shouts, sighs and screams. At this time the pulse was 112. These lasted about five minutes. I then gave another ten-grain dose of the emetic, with the effect of speedily causing the

evacuation of the contents of the stomach, which smelled strongly of alcohol. This over, she at once sank into a deep but apparently natural sleep, from which she could be aroused for a moment at a time. Her pulse rate fell to 92, respiration being regular. At intervals of half an hour I gave a little stimulant and left her out of danger. At time of leaving, her pupils were contracted, but dilated when she was aroused.

I have never met with nor heard of a similar case, where one totally unused to absinthe has taken any such quantity, and so consider this case rather unique. In those accustomed to the liquor the above amount would not occasion any such alarming symptoms.

Case III.—Duboisia Poisoning.—L. B., æt 50. Patient in the Illinois Eye and Ear Infirmary—Service of Prof. E. L. Holmes. Left eye lost through malpractice some years ago. Has recently had iridectomy made in right eye, preliminary to cataract extraction. Has been using until lately atropia as a mydriatic, but this seeming to irritate, a solution of sulphate of duboisia (gr. j to 3 j) was substituted. The bottle containing this the patient carried in his pocket. About 9 P. M., April 27th, he took, purely by his own carelessness, a teaspoonful ($\frac{1}{2}$ gr.) of this solution instead of taking it from another bottle containing a diuretic mixture. The mistake was at once reported.

Within eight minutes he experienced a very dry feeling in the throat and roof of the mouth, and found it impossible to articulate—the power of co-ordinating the muscles of the tongue and the oral muscle being lost. Soon after, upon endeavoring to walk, his limbs “gave way,” and he found it impossible to even stand and keep his balance. He also noticed a peculiar numbness rapidly supervening in the extremities, which soon felt “as if they were asleep.” Within half an hour he was totally unconscious; pulse, 116.

There being no resident or house surgeon to direct the treatment, there was some delay in procuring assistance. In the meantime repeated doses of an emetic were exhibited, which, however, did not act till after he was unconscious. Stimulants were used vigorously, both internally and externally, as occasion seemed to demand, until at 4 A. M., he answered questions, and by 6 o'clock seemed himself again. For two days subsequently there was a tremor and weakness as well as uncertainty of action about all the voluntary muscles. The fact of his having been using the drug, and the previous condition of his eyes, made any observations at the time upon the pupil of no importance. Owing, also, to the delay in summoning a physician, no accurate and scientific account of the early symptoms was obtained.

The notes of this last case were reported through the courtesy of Dr. Holmes, in whose service it occurred, and who intends in the future to make a more complete report, with studies upon the literature of the subject.

CORRESPONDENCE.

NEW YORK, May 10th, 1880.

Preparations for the meeting of the American Medical Association, which is to take place during the first week of June, are already being made by the committee of arrangements. It is expected that a large number of distinguished members of the profession will be present both from this country and from Europe, and that the meeting will be one of especial importance. Among those who have accepted invitations to attend are Dr. Lister, Sir William Ferguson, Dr. Erickson, of London; Dr. Harrison, of Liverpool; Dr. Donders, of Utrecht, and Drs. Charcot and Gueneaud de Mussy, of Paris. It is needless to say that many celebrities from various sections of our own country will be present to welcome the strangers and compete with them for the honors of the occasion. The committee of arrangements have secured the Y. M. C. A. hall for the daily general sessions, while the sectional meetings are to be held in the various parlors of the building and in the College of Physicians and Surgeons, on the opposite side of Fourth avenue, corner of Twenty-third street. The general sessions will be held from 10 till 1 every morning and the sectional, of which there will be five, from 3 to 5 P. M. At the opening meeting, on June 1st, an address of welcome will be given by the eloquent chairman of the committee of arrangements, Dr. T. Gaillard Thomas, which will be followed by the address of the president of the association, Dr. Lewis H. Sayre. A large and brilliant reception will be held in the Academy of Music in the evening. Further details of the meeting and of the papers to be read are not as yet made public.

It is announced that the first of the series of Cartwright lectures delivered before the College of Physicians and Surgeons will be given by Dr. Bartholow, of Philadelphia, formerly of Cincinnati. The will of Dr. Cartwright provides for the annual payment of \$500 to a lecturer chosen by the Alumni Association of the College, and it seems that Prof. Bartholow is their first choice. It is proposed by the association to make this course of lectures attractive to the members of the profession at large, as well as instructive, to the students of the College. Similar courses delivered at the Royal College of Physicians in London have brought out some of the best talent of England, and been the means of giving to the profession the results of the most careful observations and deductions of specialists in various departments. It is hoped that this lectureship in New York will be productive of equally useful results. The selection of Prof. Bartholow to begin the course is a very fortunate one, and the Alumni are to be congratulated upon it.

The following cases from Bellevue Hospital wards may be of interest to your readers:

Case I.—Œdema of the Lungs—Intravenous Injection—Recovery.—The patient was a male, about 36 years of age. He was brought into the hospital under the influence of liquor and put in the cells to sleep off its effects. The next day the attention of the house physician was called to him as he seemed to be suffering greatly, and he was accordingly removed to a ward. On examination, it was discovered that there was considerable difficulty in breathing and that his feet and legs were much swollen and œdematous. He gave no history of previous illness—had not been sick before the beginning of his debauch. Had been drunk for several days before his entrance into the hospital. Physical examination gave no evidence of any abnormal condition of the heart, but loud, moist râles heard over the chest in front and behind indicated the presence of extensive œdema of the lungs. The patient was obliged to assume the sitting posture in bed as the dyspnoea increased. He coughed constantly and raised a thin, frothy sputum mixed with blood. His face was red and anxious; his pulse moderately full and rapid; his breathing was very labored, and his efforts to obtain air distressing. An examination of his urine failed to reveal the presence of albumen; its color was dark, its sp. gr. 1028. The dyspnoea being urgent and requiring active treatment, cups were applied over the whole chest and whisky was given freely, but with little apparent effect. The pulse became more feeble, the face livid, the extremities cold, and the whole body was covered with perspiration. The patient was every moment becoming more restless, turning his head from side to side, bending forward and tossing his arms about in vain efforts to breathe. Tinct. digitalis was then injected hypodermically $\text{m} \times$. Oxygen was brought and mixed with air; it was inhaled by the patient, the tube being held to his mouth while he was directed to breathe through both mouth and nose. The effect of the digitalis was seen in a slight increase in the fullness of the pulse. The oxygen did not give the relief which was expected, and after a trial of twenty minutes was refused by the patient, who said it did no good. All the symptoms increasing, and there being added to them a frequent passage of small quantities of urine, a pill of croton oil, gt. j was given. This produced profuse liquid stools in about half an hour, with some slight improvement in the respiration. This improvement was, however, only temporary, and the dyspnoea soon became as marked as before. The patient was becoming more exhausted every moment, and the signs of carbonic acid poisoning were very evident, lividity of the face, apathy, disinclination to open the eyes or reply to questions, coldness of the extremities and face, while the pulse became more feeble and was scarcely perceptible at the wrist. As the treatment so far had seemed of but little avail, it was determined to inject aqua ammonia into the veins. The cephalic vein was se-

lected and exposed by a small incision, and with a hypodermic syringe fifteen minims each of aq. ammon. and aqua dest. were injected into it. The effects of the injection were felt in a few minutes, in the increased force of the pulse, while soon after the respiration became somewhat more easy. The patient was still, however, in much distress, and the dyspnoea subsided very gradually. During the following ten hours dry cups were again applied several times over the chest, and whisky and ammonia were given by the mouth. At the end of that time the breathing was much less difficult, though the moist râles could still be heard over the lower part of the chest in front and behind. Since then they have disappeared entirely, and the patient is in a fair way to recover. The absence of other causes for the œdema leads to the supposition that it was due to failure of the heart, resulting from exposure and alcoholism. No evidence of disease of the heart, lungs or kidneys could be discovered. But the depressing influence of large doses of alcohol long continued is well known, and it is evident in this case that the stimulant action being exhausted, a reaction and consequent enfeeblement occurred, which gave rise to the congestion of the lungs and œdema. This diagnosis was confirmed by the fact that further doses of alcohol, in the form of whisky, failed to produce any effect on the heart. Bleeding, which was suggested, was happily avoided, and would probably have been fatal, as it would only have increased the exhaustion, without aiding the enfeebled organ. The injection of ammonia, which has been successful in many similar cases in the hospital, doubtless was the means of sustaining life here, as improvement began soon after. At any rate it is worth a trial in these cases.

Case II. Acute Myelitis. Symptomatic Treatment.—Dr. Wm. H. Thomson presented at his clinic at Bellevue Hospital a case of acute myelitis, and made the following suggestions as to prophylactic and actual treatment of the complications which are liable to occur during the course of such a case. He said: "The patient was suddenly taken three weeks ago with pains in his back and shoulders, which were followed in six days by a feeling of constriction about the body at the level of the fourth intercostal space. On the thirteenth day after the first feeling of pain he noticed that the stream of urine came slowly and was not projected as usual. On the fourteenth day his limbs began to feel weak, and this weakness increased rapidly, so that in two hours there was a total loss of power in the lower extremities. On admission to the hospital, on the twenty-first day of the disease, he was in a condition of total paraplegia and had lost control of the sphincters. All sensation below the fourth intercostal space was absent, and the skin above that line was hyperæsthetic. There was no pain on pressure or motion along the spinal column, but he is unduly sensitive to heat at the level of the fourth dorsal

vertebra. Bed sores were found over the sacrum and on both heels. The symptoms are clearly those of myelitis. It is not, however, to a differential diagnosis from meningitis or locomotor ataxia that I wish to call attention to-day. I want to speak of certain complications which are often seen in these cases, and which must be anticipated and prevented if possible, viz., bed-sores, cystitis and pyelitis. In most cases of myelitis you will find bed-sores occurring early. I have known them to come within thirty-six hours of the first feeling of constriction. The nerve cells in the spinal cord, which preside over the nutritive processes in the skin are involved early in the inflammation. Hence, there is some defect in the nourishment of the skin and slight irritation gives rise to the formation of large ulcerating surfaces on prominent points, which are pressed upon, especially the region over the sacrum and the heels, as in this case. Such bed-sores may complicate many diseases when the patient is confined to bed for a long time, but myelitis, especially, predisposes to them. Now this complication is one which can be foreseen and guarded against. As soon as the patient complains of constriction around the body and weakness of the limbs, it is your duty to place him at once upon a water bed, by which pressure is equally distributed over the whole surface. But it will not do to lay the patient directly upon the rubber bed. Place under him a thin sheet and under that an old blanket, so that by no possibility shall his skin come in contact with the rubber, for rubber is particularly irritating to the surface of the body. As the patient becomes paraplegic and unable to move himself, see that he is turned from time to time in bed, so that he shall lie on one side or the other as much as possible, and not upon his back. This will prevent hypostatic congestion of the skin, and also of the lungs and cord, and it is your aim to avoid all complications which may arise from such congestion. I have also found it of great service to apply the Faradic current three times a day to the skin of the back, as a prophylactic against bed-sores. It stimulates the circulation and seems to have a greater power than any other measure in assisting in the nutrition of the skin. Cleanliness is of the first importance, as you are well aware. By these means you may prevent the formation of bed-sores, and all who know their disastrous effects in acting as a drain upon an already weakened system will appreciate the importance of this result. If they form in spite of your care or before you are called to treat the case, I think the best application is an ointment made of the tannate of lead, 3 i to lard 3 i, to which oil of peppermint, gtt. v., is to be added as an antiseptic. Spread this upon a thin linen cloth; change the dressing twice in twenty-four hours, and wash the sore with a solution of carbolic acid, 1-50, whenever the dressing is removed. I think it well to use the Faradic current upon the sore, applying the positive pole to its surface.

A second complication, even more dangerous than the first, arises from the paralysis of the bladder which occurs in most cases of myelitis. The patient notices very soon that his stream of urine is small—flows slowly—and dribbles or falls between his feet instead of being projected as usual. Soon all desire to pass water ceases, and the patient may be unconscious of any discomfort when the bladder is enormously distended, as was the case in this patient when admitted to the hospital. When this is the case, the catheter must be passed every four hours and the bladder emptied as thoroughly as possible. A little urine will, however, often remain unless the greatest care is taken in drawing it; and if so, it will decompose and set up a cystitis, which is known by a discharge of very offensive alkaline urine mixed with pus. This condition frequently leads to another, viz.: the extension of inflammation to the kidneys, pyelitis and even a suppression of urine, and death from acute uræmic poisoning. Here, then, is a double danger to be avoided. As soon as the patient notices anything abnormal in the passage of urine let the catheter be used regularly every four hours, and by pressure upon the bladder and the aid of gravity remove all the urine possible. See that the catheter used is clean, and wash it in carbolic solution before using it, for a dirty catheter has often been the exciting cause of cystitis. If the urine is alkaline, it will be well to wash the bladder out twice a day with a solution of borax, to which a little carbolic acid has been added. The amount injected at one time should never exceed $\frac{3}{4}$ j, but this may be repeated until the fluid which comes away is as clear as that injected. As a prophylactic against pyelitis and nephritis, I should prescribe to patients with cystitis an inf. of buchu with paregoric, to be taken three times a day. This is about all that can be done to combat this serious complication. But, whatever you do, begin to do it early that you may not be responsible for the occurrence of an evil which could have been prevented."

I am able to add that two weeks after the above treatment was begun the patient was doing well, as far as these complications are concerned. The condition of the bed-sore is much improved, and it has diminished greatly in size. There is, at present, very little if any cystitis, and the urine contains much less pus than it did two weeks ago.

Case III. Neuralgia of the Foot. Surgical Treatment.—The patient was a female, æt. 25. She complained of lameness caused by pain in the sole of the foot. The pain was constant, was associated with membranes, and extended up to and about six inches above the external ankle. It was greatly increased by compression of the sides of the foot, and also by pressure upon the dorsum near the toes. Dr. Robert F. Weir presented the case at his clinic as one of a new disease, recently brought to the notice of the profession by Dr. S. Weir Mitchell, of Philadelphia, and

successfully treated by him. Dr. Weir said: "The trouble here is simply a mechanical one. The nerves supplying the toes run down between the metatarsal bones. In the normal foot, the fifth metatarsal bone is shorter than the fourth, and if the foot be compressed, its head will press against the neck of the fourth. Now, in this case, by a tight shoe or some other cause the foot has been compressed until it has taken such a shape that every time the patient bears her weight upon it the nerve is pressed upon and pain results. The proper and, in fact, the only remedy is excision of the head of the fifth metatarsal bone. It can be readily performed and is a safe procedure. I have cured one case in this way which had resisted every other means. Dr. Mitchell has recently reported seven similar cases operated upon by himself, and Dr. Morton, of Philadelphia, with good results. I shall urge the operation in this case. The cause being removed, the effect is no longer produced—hence, the cure is radical."

FOREIGN BODIES IN THE VAGINA.—At a recent meeting of the London Obstetrical Society, Dr. Charles H. Carter reported the case of a woman who had introduced the metal drinking-cup of a flask into her vagina two years before. The foreign body provoked some pain and bleeding at first, which effects soon disappeared. Six months before she came under the care of Dr. Carter she began to lose her urine from the vagina; the cup was then discovered and removed. It was found projecting partly into the bladder through a fistula two inches broad. A month afterward the fistula was found to be much smaller, and was then successfully closed. The cup was covered with phosphatic incrustations, and weighed six ounces.

Dr. Edis, in commenting on this case, mentioned an instance of a woman who had worn a pessary as large as a goose egg for a period of eleven years without her knowledge.

To these cases we may add that of a young woman who was once examined by a practitioner, who decided that she had "womb trouble," to relieve which he introduced a large Hodge pessary, without her full knowledge. Six years afterward, the woman in the meantime having some discomfort, she visited a female specialist, who discovered and removed the pessary.

These instances can be greatly multiplied, and show the importance of resorting to pessaries always with the full knowledge of the patient.

THERE are in this State 4,850 exponents of the healing art, of whom 3,346 are physicians, 456 are eclectics, 437 are homœopaths, 37 are "fizzle-o-medicals," and 374 are "go as you please" prescribers.

CLINICAL REPORTS.

*PROGRESSIVE MUSCULAR ATROPHY.**A Lecture delivered in the Mercy Hospital, April 21.*

BY PROF. W. E. QUINE.

Continued.

Further than this we have not discovered, with the possible exception about to be noticed, any change of form or loss of strength in the voluntary muscles. The ocular, facial, glosso-pharyngeal and the various other muscles seem to be intact. I have noticed, however, that the gait of the patient is somewhat shuffling and uncertain. She has difficulty in extending and raising her feet, stumbling often and sometimes falling, and these accidents are especially apt to occur when she goes up and down stairs. To-day, for example, she stumbled when getting into and out of the carriage, and she stumbled twice in ascending the hospital steps. There is obviously some involvement of the muscles of the lower extremities, though no examination has yet been made to determine its precise location and extent.

This history would be tedious if it were less interesting and instructive. I have ventured to lay the details before you, for a proper appreciation of them is necessary to a comprehension of the nature and tendencies of the case. We have a history of insidious development, of irregular wasting of parts, of aching pains, and of restricted movement. The disease, whatever it may be, is plainly progressive. It first manifested itself in the hands, then in the shoulder and neck, and then in other parts of the muscular system. What is its nature? It is hardly possible for a reasonably careful physician to mistake it, when it is well marked, for any other. Carelessness is a much more prolific cause of erroneous diagnosis than incapacity. What is the diagnosis here? Is it lead palsy? No, it cannot be that. The patient had lived on a farm up to the date of the commencement of her disease and had never been exposed to lead emanations, nor used water from leaden reservoirs or pipes. She does not exhibit the lead cachexia, nor the characteristic "dropped wrist." True, she suffered from constipation, but this we have found was due to a mechanical impediment and it was never attended with violent colic. There is not now, and, so far as we know, there never has been, a blue line along the margin of the gums. Moreover, lead palsy, when it does occur, reaches its full height in a couple of weeks, and in this case the disease has been extending slowly and gradually for years. In the former, electrical excitability of the affected muscles is much impaired or lost altogether, while in this case the muscles respond, in a general way, with a degree of energy proportionate to their bulk. It is not a case of chronic lead poisoning. Is it pseudo-muscular hypertrophy? It cannot be that, for Duchenne's paralysis usually occurs

in children, mostly in boys, before the age of puberty; it is symmetrical and attended with increase in the bulk of the affected parts, and not uncommonly with evidences of mental impairment. It is not that. Is it paralysis and atrophy resulting from disease or injury of a nerve? In such cases we find, when mixed nerves like those constituting the spinal system are involved, that disturbances and final loss of sensation go hand in hand with paralysis of motion, and that those parts only are affected which are animated by particular nerves. Moreover, paralysis precedes atrophy, and the atrophy is not apt to progress, as it has done in this case, to the extent of complete destruction. The erratic progress of this case, the simultaneous wasting and weakening of widely separated and differently innervated parts, tells us plainly that it is something more than a mere neuritis. Is it a case of central paralysis? No. Central paralysis invades wide areas, simultaneously, as a rule. True, there are exceptions to the rule, but in them the clinical histories bear no resemblance to the history of this case. Central paralysis does not exhibit the selective, dissecting tendency that forms so conspicuous a feature in the case before us. But clinical histories are more or less distinct, a certain array of symptoms and signs stands as the representative of certain changes in structure and function. Here we have the typical features of just one disease, and that is progressive muscular atrophy. It must not be inferred that the name "progressive muscular atrophy" stands for any one unvarying condition of disease in the nervous system. It has reference to the seat and progressive character of the most conspicuous changes which occur, but it implies nothing as to the modes of development of these changes. But this is not all. It stands for a pretty definite order of development of the symptoms, and implies a certain definite tendency; for progressive atrophy, although it appears to pursue an erratic course, invades the muscular system in a somewhat uniform order of succession, and, when it is general, as in this case, its tendency is unmistakably toward death, by destruction of the muscles of respiration.

The recognition in this disease of elements that are quite distinct from those of longer and better known paralytic affections, is due for the most part to the investigations of German and French pathologists during the last quarter of a century. Cases of muscular atrophy unattended with motor paralysis were recorded in the earlier years of this century, but their significance was not so well understood as it is now. Aran and Cruveilhier are to be credited, not only with the discovery of many important facts in relation to the pathological anatomy of the disease, but also with giving investigation both impulse and direction. Duchenne, too, has contributed largely to our knowledge of the subject, and, in later years, Meryon, Luys, Clarke, Friedreich, and numerous others, have done much toward enriching

our store. The predisposing and exciting causes are better understood than they are in relation to some other diseases that we have considered, and of the former class, heredity, probably, ranks first in importance. Numerous instances are recorded wherein the disease has followed the various ramifications of a family, has made its appearance in several members of the same family, and has been transmitted directly, or a tendency to it has been transmitted directly, by one parent to the offspring. Heredity is not traceable in the majority of instances, but it is, nevertheless, to be regarded as one of the most potent of the predisposing causes. In the case of our own patient it has undoubtedly been operative. On her mother's side there is a clearly marked history of nervous disorder, not so conspicuous in the vague sensations of numbness of which the old lady complained, as in relation to paralytic manifestations which had appeared in her sister and one of her brothers. The old lady was married twice. To her first husband she bore two sons, and to the second this daughter. All the children exhibit some form of nervous or muscular disease. One son is mentally incompetent, the other is undoubtedly the subject of a slowly progressing muscular atrophy, and the daughter exhibits this disease in an advanced stage of development. Heredity is traceable to the mother, therefore. The influence of age, also, is too important to be lost sight of. Although no period of life is absolutely exempt, the disease usually makes its appearance between the ages of twenty and forty years. When heredity is operative, the disorder is apt to be developed at an earlier age than it is when traceable to some accidental cause. Our patient was thirty-two when the first well-marked symptoms made their appearance, and in this respect her history is fairly typical.

Antecedent diseases, and especially those of an adynamic type, venereal excesses, and various other circumstances of a similar depressing nature, have, in individual cases, been supposed to awaken a predisposition to progressive atrophy, but none of them can be considered as having had anything to do in the causation of this case. Of immediate or exciting causes several might be mentioned, and one of the best recognized of them is excessive muscular activity. Overtasked muscles are very apt to suffer. Artisans and others who use a limited number of muscles with excessive energy, very often exhibit the disease as limited to those particular parts. These constitute, as a rule, the most benign and curable cases with which the physician has to deal. Usually the destructive process invades only the abused parts. It may not terminate in restoration of volume and strength, but it nevertheless involves under the circumstances the minimum danger to life. The excessive use of a large number of muscles will of course entail the same penalty, and then the princi-

ple will be exemplified on a correspondingly large scale.

Roberts, one of our most authoritative writers on this subject, traced the disease back to excessive physical toil in twenty-five out of sixty-nine cases. When such a potent factor co-operates with hereditary predisposition, as it has done in the case of our own patient, it is not difficult to understand the widespread ravages and the dangerous tendencies of the malady. In this connection the question of sex may be introduced with greater pointedness than it could have been before. Although male subjects furnish a large majority of the cases their sex is vastly less potent as a cause than the fact that they are especially apt to overtax their muscles and to suffer from violence and exposure to inclement weather. Hard-working women are probably as likely to be called upon to pay the penalty of physical exhaustion as hard working men. You may have inferred from what has been said that the subjects of this atrophy are usually persons of good muscular development, and this is actually the case. In exceptional instances congenital feebleness of the muscles has been noted, and this especially under circumstances of hereditary tendency; but when the disease occurs independently of this it usually occurs in robust and vigorous persons. Exposure to inclement weather, or, in common parlance, "catching cold," is charged by various writers with the causation of the disorder under consideration about as often, relatively, as it is with the causation of almost every other non-parasitic and non-infectious disease. At times it may not be without its due share of influence, although the mere fact that exposure to bad weather has now and then preceded the appearance of the malady is not proof that the exposure had anything to do in its causation. In nearly half the cases it is impossible to ascertain with anything like precision or satisfaction the particular determining cause, and this remark applies equally well to all the more obscure forms of disease. It is claimed by Roberts, however, that the cases originating, or supposed to originate, in exposure to cold and wet weather are apt to involve a wider spread destruction of muscles than those resulting from overwork. This opinion, so far as I am informed, is not confirmed by any other writer of prominence. In times past opportunity has been afforded you to study various diseases of the cerebro-spinal axis, and you will remember that several of them, poliomyelitis, amyotrophic lateral sclerosis, progressive bulbar paralysis, etc., are characterized by more or less continuous wasting of extensive muscular regions. You will not be surprised to learn, therefore, that in a considerable number of the recorded cases of progressive atrophy, disease or injury of the spinal cord has served as a starting point of the affection. In some of these cases, however, although a distinct history of traumatism is given, it is difficult to establish the connection between the injury and the

succeeding disease. This remark is particularly applicable to such cases as the one reported by Valentin, in which failure of health immediately appeared after a fall on the back from a considerable height, although the appearance of progressive muscular atrophy was delayed for six years. Similarly, disease or injury of nerves has appeared, in a few instances, to originate degenerative atrophy in the muscles, probably by interrupting communication between them and the trophic centers in the cord. The muscles themselves may be affected in the same way; they may be injured mechanically, and, it is at least conceivable, they may be the seat of idiopathic inflammation. In either case, atrophy may not only occur, but it has been known to do so, and also to extend from the parts primarily affected to uninjured muscles. Friedreich and Eulenberg relate interesting and instructive cases of this kind. It would not be profitable, however, to pursue this phase of our subject longer. We have already given it a fair share of attention, and are now prepared to enter upon the study of the symptoms of the disease in general, and to analyze the symptoms presented by the case before us in particular.

The case is typical. It exemplifies the usual order of development and all the strongly marked features of the malady. It even suggests the particular mode by which the relentless march of destruction usually destroys life. It tells us that the earliest symptoms are weakness and awkwardness of movement; that the patient discovers his inability to command the consentaneous action of the various members of a group of muscles; that he finds it difficult to perform such simple acts as buttoning his coat, combing his hair, holding his pen—and, when he is pressed into domestic service—peeling potatoes; that he then discovers particular muscles to be at fault, that they are wasted and enfeebled. It further tells us that the muscles of the hand are first invaded, but it is somewhat astray from the usual course in that it shows the left hand was affected earlier than the right, and that from the beginning it has been more extensively involved. The reverse of this is the rule, probably because the right hand is more liable to be overtaxed than the other. Our patient is not left-handed. Aran's investigations indicate that the atrophic process begins in the upper extremities nine times in eleven, and in the right upper extremity seven times; but they imply also that it may begin in other parts of the body at least two times in eleven. This assumption is supported in a general way by the statistics of Friedreich, which show that in a total of one hundred and forty-six cases the upper limbs are first to suffer in one hundred and eleven, the lower limbs in twenty-seven, and the muscles of other parts in eight. Concerning the particular muscle that was first attacked in this patient it is impossible to express an opinion, for the disease was well advanced when the lady came to my notice. There is some difference of

opinion among those who are most competent to decide, in relation to the rule in this matter. Friedreich, Roberts, and Trousseau agree in the emphatic statement that the muscles of the ball of the thumb are the first to exhibit changes, and that those of the hypothenar prominence, and the interossei, do so subsequently. Eulenburg, who appears to have investigated the subject with the greatest possible care, rejects this opinion and maintains that almost constantly the order of invasion is the interossei, and then the muscles of the thenar and hypothenar convexities. This is not a question of much practical importance, maybe, but in the same connection I may say it is very important to remember, especially with reference to the matter of diagnosis, that the early atrophy and loss of power of the muscles of the hand imparts to the disease some of its most striking and characteristic features. Remember this. But, while remembering it, do not forget that you may meet this lady's brother, whose hands are quite unaffected, but whose shoulder is shrunk and powerless. The disease sometimes, and not very rarely, makes its first appearance in the deltoid, though usually this muscle becomes affected after the muscles of the hand, while intermediate parts escape—sometimes permanently, but generally only for a time. Why it is so has not been explained, but it is a fact that large joints seem to constitute an impediment to the regular extension of the wasting process. It comes to a pause here, and long before the barrier is crossed some other part is found to be dwindling away. In this way the shoulder is involved secondarily to the hand, and from these points the morbid process extends downward and upward till it reaches and bridges over the elbow joint. Such are the usual modes of invasion. Other modes are rare and dependent for the most part on exceptional circumstances and direct injury. In young persons of pronounced hereditary tendency the lower extremities, from their greater liability to be severely taxed, are more likely to become the original seat of visible and palpable changes than they are in mature subjects. When other parts, such as the thoracic, cervical, or facial muscles, serve as the point of attack,—they do so but very seldom,—it is generally a result of traumatism, and then the destructive process is more apt to be circumscribed than it is under other circumstances. There is hardly a voluntary muscle in the body which has not been known, at one time or another, to be implicated, although there is such a thing as comparative, and, I may even say, absolute immunity. The ocular muscles have never been known to be injured, and the muscles of mastication almost always escape. The buccal and oral muscles are affected with comparative frequency, while the flexors and extensors of the head enjoy comparative safety. And so it is with other parts; portions suffer and others do not. The tendency to pick out particular muscles here and there without special

reference to their sources of innervation is one of the most singular characteristics of the disease. But, you must remember that, though a muscle becomes the seat of morbid action, its subsequent destruction is not inevitable. The atrophy may involve a few fasciculi and leave the great mass of contractile tissue untouched; or it may leave but little else than the connective tissue framework, though, generally, even now little scattered reddish specks may be seen which indicate the previous site of muscular structure. Different parts are not invaded simultaneously then—not even different parts of the same muscle—nor are they affected in an equal degree. The descriptive epithet, “progressive,” tells us that. It does not mean that the atrophy, once it has begun, necessarily goes on, and on, and on, indefinitely, or to the extinction of life. The fact is it may be limited to a group of muscles, or to a single muscle, or even to a small part of it. It may be permanently arrested here. Such cases are not rare. What is singular and suggestive about them is, that the muscles which are most apt to be only partially destroyed are those which are innervated from more than one source. But very often the wasting, after it has stopped altogether apparently, again makes its appearance, in different parts in rapid succession. It does not extend by contiguity of tissue, as we have seen, and, indeed, it has never been shown that it extends through continuity. There seems to be a different impulse to morbid action for each fasciculus. When it is confined to a particular region, that region is usually the right hand; but when the muscles of one hand are affected the corresponding muscles of the opposite side, as a rule, share their fate before other parts are noticeably changed. This is the way the disease has extended in our own patient. When the muscles waste in substance they also do in strength, and the process of annihilation may go on to the extinction of functional capacity. The loss in strength is generally proportionate to the loss in volume, as was first shown by Duchenne in his observation on localized electrization. Sometimes, however, a superabundance of adipose tissue may conceal the existence of a limited atrophy. Such cases are difficult to diagnose, and the only way in which it can be done at all is through a thorough acquaintance with the lines of action of muscles and an attentive consideration of the movements of the disordered members. It is very rare for the atrophy to exceed the paralysis, but it occasionally happens that the latter exceed the former. This discrepancy is, in most instances, apparent rather than real. The fact is that the atrophied muscle may be the seat of fatty infiltration, and it is in this way that its volume is preserved when its strength is exhausted. It is not very unusual, though, for voluntary power to be lost in parts that still respond to electrical stimulation. In such cases the cord or nerves are in all probability primarily at fault, and the atrophy is

secondary to the paralysis. But, ordinarily, the energy of response to electrical stimulation is proportionate to the loss of voluntary power, and some response is evoked as long as there is any contractile tissue left. The way in which the electricity is used exerts some influence upon the result. Trousseau cites a case in which excitation of the muscle resulted in contraction when excitation of the nerve did not; but Eulenburg maintains that in nearly all cases faradic excitation of the muscle is first to fail, then faradization of the nerve, and, lastly, after extinction of electrical irritability in both muscle and nerve, voluntary power is lost. The explanation of this singular fact, if it be a fact, which the distinguished German investigator offers, does not seem to me to be adequate. He suggests that the periphery of the nerves may be excessively irritable, and may magnify, so to speak, the impulses they transmit. The assumption is warrantable enough, but it in no way explains why the periphery should magnify volitional impulses after it has ceased to magnify electrical impulses.

What is interesting in this connection and serviceable as an aid in differentiation is the fact that in motor paralysis when the muscle does not respond to faradization, and does not respond to the constant current, the muscle itself is not as much at fault as its innervation. While these changes in the volume and capabilities for action are occurring, various other symptoms are in process of development which deserve attentive consideration. Of these, cramps and fibrillary contractions occupy a prominent place. Usually the former are not sufficiently severe and frequent to attract much attention, but in other cases, like the one before you, they give rise to considerable suffering. When they do not occur spontaneously in the affected parts, they may sometimes be excited in them by cold and exercise. You will remember the feeling of “deadness” which, very early in the history, our patient experienced in some of her fingers. These would appear perfectly normal till they touched something cold, but then they would at once become pale and painfully cramped. And, again, the lady informs us, that every time she attempts to comb her hair violent cramps occur in her shoulder. This symptom is not as constant, as painless fibrillary clonic contractions. When these do not occur spontaneously they may often be produced by flipping the skin. When they invade a good-sized muscle obvious quivering occurs, but when only a few fibers of a small muscle are agitated there is nothing but a sensation of twitching. They are not pathognomic of progressive muscular atrophy. You have not forgotten the case of spinal sclerosis, you examined with me yesterday in which quivering of nearly all the muscles of the right thigh engaged our attention for a while. It was extremely well marked in that patient, although nothing like it has appeared in this one at all. Indeed it is often absent

in progressive atrophy, and some observers of large opportunities—Meryon, for example—have never seen it. Duchenne says it is present only one time in five, but Bazire has discovered it in thirteen out of fifteen cases. Its existence is probably to be accounted for by the co-existence of disease of the motor columns of the cord or of the motor roots of the spinal nerves. It is indicative of the activity of the atrophic process. Its arrest indicates either a pause in the wasting or the complete destruction of the muscles. Its reappearance is significant of renewed extension. In addition to these manifestations the affected parts may exhibit local variations in temperature. In the beginning the temperature may exceed that of health by half a degree or a degree, but as wasting goes on and complete destruction at last arrives, a reduction of three or four degrees, according to Rosenthal, may be discovered. This variation is due to the varying rapidity and extent of disintegration. When the temperature is much below the normal standard, the patient, naturally enough, experiences an almost unchangeable sensation of coldness. The color of the overlying skin is not much altered in the majority of cases, but in some it is very white from anæmia, and in others it is purplish from venous congestion. Eruptions, especially vesicular, and modifications in the shape of the nails, have been known to occur. Friedreich mentions two instances of this kind and Balmer one. Such disturbances are to be regarded merely as epiphenomena, however, and as probably dependent on antecedent changes in either the spinal ganglia or the posterior portion of the gray matter of the cord. The same may be said of the occasional exhibitions of cutaneous hyperæsthesia, anæsthesia, etc., which occur in the course of the disease—they are not features, but coincidences. Leaving out of view the cramps, there is not much pain in the ordinary class of cases. Nevertheless, in some—and this lady furnishes an example—there is more or less aching in the affected parts, which is aggravated by motion and by pressure, and which may be so intense and so long continued as to deprive the patient of rest, and to constitute an important factor in the causation of exhaustion. It is apparently due to the occurrence of inflammation of the muscles, myositis, a not uncommon element, to say the least, of this disease, as we shall soon learn. One of the early and common symptoms, though not very striking in most instances, is free local perspiration in the wasting and wasted regions. It may be due, conceivably, either to local changes in the circulation, or to some disturbance of the sweat centers—if there be such centers—in the spinal cord. When the disease is well advanced, the sweating is apt to become general.

As time goes on and these symptoms are either in process of development or in active manifestation, the atrophy, of course, is more or less steadily progressing. The disappearance of muscles here and there

gives rise necessarily to more or less change of contour, and more or less functional embarrassment. The deformities are due partly to the disappearance of prominences and muscular ridges and convexities, and partly to unbalanced muscular action. Every muscle has its antagonist, you know, and the integrity of all makes complicated movements possible and determines normal attitudes when the members are at rest. If a single muscle be destroyed, the equilibrium of antagonism will be disturbed, some ataxia is sure to occur, and the member will surely be drawn in the line at the predominating force. So it is that deformities of shape and deformities of attitude are produced. The most characteristic of these occur in the hand. Look at our own patient. Her hands are extremely emaciated. The terminal phalanges are almost immovably flexed, the first phalanges are extended, and the tendons which traverse the palm of the hand stand out in unnatural prominence. The fingers are almost useless for purposes of prehension. The thumbs are singularly small. The claw-shaped appearance is characteristic of atrophy of the inter-osseous muscles. It is due to the unopposed tonus of the extensors and flexors of the fingers. The inability of the patient to separate and bring together again her fingers is due to the loss of the abductor and adductor power of the interossei. The abductor and the short flexor of the thumb, the abductor and the opponens of the little finger, and perhaps other muscles, are implicated in the atrophy. So it is in other parts—melting away of tissue involves corresponding loss in functional capacity. Here is a wasted and almost powerless deltoid, and there the destruction of the great muscular mass to the left of the cervical and upper dorsal vertebræ not only gives a queer one-sided appearance to the neck, but makes it difficult for the patient to maintain the natural position of the head. In extreme cases it is even impossible to do this, and the head falls to this side or that, with deviations in the line of gravity, just as it does in a new-born babe.

When the muscles of the face are affected, the fact cannot escape attention. There is asymmetry of form and motion, or, possibly, utter loss of the power of facial expression. Destruction of the oral and buccal muscles makes it impossible to retain saliva, and if the muscles of the tongue are involved at the same time, there is indistinctness of speech, and difficulty in guiding and comminuting food. Involvement of the muscles of deglutition constitutes a prominent source of danger in this affection as it does in progressive bulbar paralysis. Indeed, when it occurs the phenomena of progressive bulbar paralysis are generally present. There is danger now of slow starvation; or particles of food may drop into the air passages and by impeding respiration, or exciting inflammation, put an end to life. By the time the disease has reached this pass it has generally involved, also, the muscles of phonation and respiration. The voice changes.

Its compass is lessened. The patient gradually loses the power of modulating it, and it becomes monotonous. This lady once could sing but now she cannot. When the diaphragm and the intercostals and the serrati are affected there is more or less dyspnoea. The voice is feeble. There is stopping in the middle of a short sentence to catch the breath. There is not breath enough, or rather expiratory force enough, to extinguish a candle (Trousseau). There is utter inability to make a loud noise or to read in an ordinary tone for any considerable period of time. Our own patient is not in such a pitiable condition, but the fact that intense weariness and a suffocative feeling occur when she makes moderate use of her voice, is at least suggestive. But this is not all. In some cases the abdominal muscles succumb. When they do, adequate support not being given to the viscera, the abdomen becomes unduly prominent. This effect is heightened by the unopposed contraction of the muscles of the back and the occurrence of anterior curvature of the spine. And so it goes—wasting, paralysis, deformity, helplessness, choking, and panting for breath, till, finally, some intercurrent disorder benevolently terminates the sad scene.

I have said that the ocular muscles have never been known to suffer. The same can hardly be said, however, of the eye-ball itself, for in a few instances evidences of disturbed innervation, such as flattening of the cornea, contraction of the pupils, and impairment of vision, have been witnessed. Such complications must be rare, since Duchenne and Eulenburg have never seen them. They depend obviously, on implication of the sympathetic system. Notwithstanding the rapidity with which individual muscles are destroyed, and the shocking deformities that sometimes occur, there is really but little constitutional disturbance. A fair degree of general nutrition may be preserved, appetite and digestion may be good, sleep may be natural, the circulation well sustained, and the mind cheerful. Sometimes there may be a little trouble in emptying the bowels and bladder, owing to the paralysis of the abdominal walls, but no peculiar or characteristic disturbance of secretion has ever been noticed. If fever be an early symptom, it generally proves to be mild in degree and transitory in duration, and when it occurs late it is generally found to be dependent on some inflammatory complication. Progressive atrophy is a chronic disease, and its duration is uncertain. Though sometimes arrested, as we have seen, after it has destroyed a few muscles, it may resume its march after a pause of years. It is difficult to say when it has been permanently arrested. Its erratic course is deceptive. It does not always end in permanent deformity or death; recovery sometimes ensues. This is only possible, however, when the morbid process has been arrested very early and before the contractile tissue has suffered much. There is no difference of

opinion as to the status of a muscle that is atrophied—it is beyond redemption. From the data I have been able to collate, it appears that of all cases one-seventh end in restoration after an average course of fourteen months; a little more than three-sevenths come to a permanent stop by the end of the second year; and in a little less than three-sevenths death occurs, their mean duration being five years. The usual cause of death is either inanition from glosso-pharyngeal paralysis, a foreign body in the air passages, or some intercurrent pulmonary disease. When the respiratory muscles are destroyed it is very common for bronchial catarrh to occur. This would not involve much danger to an adult who was otherwise healthy, but in the case of the atrophic patient it is to be regarded as an almost inevitably fatal complication. The reason is easily understood. The respiratory muscles being powerless, the patient is unable to cough and expectorate, the secretion gravitates into the smaller tubes and air cells, preventing the entrance of air, and death results from asphyxia. Our own patient has had for some time back a little dry cough that is not without significance. The heart, so far as known, is never directly affected. Yet Dr. Fuller, of London, has described a case in which two months before death the cardiac contractions had become extremely feeble and reduced in frequency to twenty-six in the minute. I have not seen a full description of the case, but it very likely belongs to the category of bulbar paralysis; or, at least, it is likely that there was implication of the inhibitory center of the heart. Such cases are rare, perhaps rarer than one would expect, judging from the frequency of cardiac inflammation and the possibilities of ascending neuritis. But we must stop here. The physical basis of the disease, its pathological anatomy, must next be considered. This phase of the subject has attracted so much attention of late, and it is so interesting and important, that we shall in the next lecture try to give you at least a reasonably thorough and accurate description of it.

URETHRAL STRICTURE AND VARIOUS COMPLICATIONS.

REPORTED BY DR. J. B. MURPHY,

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The patient, a laborer of fifty years, states that his father was troubled with some obstruction to micturition, and for its relief submitted to operation, on three or four occasions. He died subsequently of "consumption." The patient's sister was also a sufferer from dysuria, especially upon "taking cold," and he himself had the "gravel" when he was 15 years old, for a short time. He has never had any venereal disease. Three years ago he began to have painful and frequent urination, the stream very small and the act occupying a long time. Sweet spirits of nitre afforded him prompt and complete re-

lief, however. Three weeks ago he was exposed to the rain all day, and became drenched completely. During the night he felt chilly and sick, and the following morning his urine was scanty, the act of urination was prolonged and painful, and the stream about the size of a knitting needle. This condition continued for three days, when the stream assumed its normal size. The quantity of urine was excessive from this time on, until three days previous to his admission, when the stream again became small. Upon the evening of the third day previous to admission, while straining violently during the act of micturition, he suddenly experienced great pain about his genitals. The scrotum became much enlarged during the night, so that, 36 hours previous to admission, it was about as large as his head. His perineum also became swollen and painful. He passed but little urine, and this was mixed with blood. He felt a constant desire to urinate, but only succeeded by prolonged and excessive straining. Even then only a small quantity was passed, and the violent straining increased the swelling and aggravated the pain in the scrotum. On admission the patient complained bitterly of pain in the region of the bladder, and a desire to urinate. His face wears an anxious expression and is covered with cold perspiration. The tongue is dry and coated with a heavy brown fur. Is very thirsty. Pulse is small and feeble. He has not passed more than an ounce of urine in 36 hours, but his bowels have been moving regularly. He had a severe chill yesterday. On examination the scrotum was found to be distended to its utmost capacity, very painful, of a sodden feel, dark red in color, and marked by spots of a still darker shade. The perineum was affected in a similar manner. Some bloody urine oozed from the meatus. The House Surgeon was unable to introduce a sound into the bladder, the instrument encountering but finally passing several points of constriction to meet a still greater obstacle a short distance anterior to the bulb, beyond which it could not be passed. The flexible filiform guide to the urethrotome, however, appeared to pass into the bladder, but it was impossible to make the grooved staff follow it. Subsequently it was rendered certain that the filiform guide had not entered the bladder at all, but coiled up in a cavity, without the urethra. Dr. Gunn, having been telephoned the state of affairs (it being about 7 P. M.), requested the house surgeon, Dr. Bergen, to perform external urethrotomy. This was accordingly done. The staff having been introduced as far as possible, an incision was made in the median line of the perineum, about one and a half inches long, extending from one-half inch posterior to the scrotum to one-half inch anterior to the anus. This incision exposed the point of the staff. Having reached this point it was found impossible, by gaslight, to discover the continuation of the urethra, for the canal had been ruptured at a

point anterior to the perineum, and the entire scrotum had been converted into a vast cavity, containing a mixture of urine, pus, blood, and broken down tissues, in which the staff could be turned in any direction. After an hour's work, therefore, the doctor was obliged to abandon the attempt.

On the following morning, Dec. 7th, the House Surgeon again caused the patient to be anesthetized and placed in a proper position and in a good light, with a view to resuming his search for the urethra. The staff being introduced until it appeared in the perineal wound, and a careful exploration being made, it was discovered that the urethra was ruptured on its superior aspect, just anterior to the point where the scrotum joins the perineum, and that the staff, escaping at this point, had passed to the right of the continuation of the canal. The fact was also revealed that the incision had been made to the right of the urethra, and had not extended through its walls at all. The parts having been brought fully into view and reach, a cautious incision was made through the inferior wall, in front of the bulb, until the canal itself had been opened. Then, after much difficulty, and guided by the stream of urine which was expelled by the pressure on the abdomen, a silver probe was passed into the bladder, and by its side a small metallic catheter. The course of these instruments was traced by the finger in the rectum, and the entrance of the catheter into the bladder was testified to by the escape of urine. Using now the latter instrument as a guide, the opening into the distal portion of the urethra was enlarged, and a female catheter (about a No. 9) was passed into the bladder, and secured with tapes. By this means exit was given to a large quantity of bloody urine. This second operation occupied two hours.

Dec. 7, P. M., temp. 96.2. The patient had a chill very soon after the operation, the pulse was small and feeble, and the skin cool and bedewed with perspiration. Half an ounce of whiskey was given every two hours. •

Dec. 8, A. M., pulse 108, temp. 100. He is now feeling somewhat better, although still weak. The whiskey was continued and five grains of cinchonidia sulph. given with each dose. The scrotum is reduced in size and inflammatory appearance.

Dec. 8, P. M., pulse 118, temp. 101.7. The urine flows freely through the catheter and the patient is reacting fairly.

Dec. 9, A. M., pulse 102, temp. 102. Supported the scrotum with a suspensory band, so as to assist its drainage and prevent excoriation from contact with the moist perineum.

Dec. 9, P. M., pulse 120, temp. 103. The patient is comfortable.

Dec. 10, A. M., pulse 112, temp. 100.6; P. M., pulse 114, temp. 102.8.

Dec. 11, A. M., pulse 96, temp. 98. His general condition is now not good; his appetite is poor, as

is also the state of his nutrition. The scrotum has nearly returned to its normal appearance. The urine flows through the catheter, but still the patient has considerable uneasiness, caused by a desire to pass urine through the penis and inability to do so. He complains of smarting and burning about the urethra. Benzoic acid gr. v. three times daily.

Dec. 11, P. M., pulse 110, temp. 100.7. This afternoon the House Surgeon passed a small probe into the bladder alongside of the catheter, then a long metallic catheter through the penis down as far as the incision, and then, withdrawing the female catheter through the wound, he introduced the long one into the bladder and secured it with tapes after he had withdrawn the probe.

Dec. 12, A. M., pulse 112, temp. 100.6; P. M., pulse 114, temp. 100.

Dec. 13, A. M., pulse 110, temp. 98.6. Is doing fairly; says he feels, sleeps and eats well and has no pain. He is very haggard and emaciated and has a "decidedly sick" look about the eyes. There is a considerable suppuration going on in the perineal wound, and a small gangrenous spot has appeared at the dependant part of the scrotum. Continued the whiskey and cinchonidia.

Dec. 13, P. M., pulse 112; temp. 97.

Dec. 14, A. M., pulse 114. The temperature taken at the mouth on three successive trials was 93.5, but the temperature of the rectum was 99.9. At 7 P. M. he died.

Post mortem—Twenty hours after death, revealed a peculiar condition of affairs. The bladder was divided into two portions, resembling in shape and relations the halves of an hour-glass. The cause of the constriction, as demonstrated through a microscopical examination by Dr. Chr. Fenger, was a large tumor of the muscular variety. The constricted part, between the two cavities, was no larger than the ordinary passage from the neck of the bladder into the urethra, and was at first supposed to be that passage, while the inferior cavity was supposed to be a dilatation of the urethra behind the point of stricture. The erroneous idea was, however, corrected by a more careful examination of the relations of the parts. The entire bladder was the seat of a violent inflammation, the entire mucous membrane, but especially that lining the inferior cavity, being in a disorganized and almost gangrenous condition, and covered with a thick layer of diphtheritic membrane. In addition to this, both ureters were dilated to a diameter of nearly half an inch and were very tortuous. The pelvis of left kidney was greatly distended and the parenchyma of the organ partially absorbed, giving place to a large cavity filled with urine. The right kidney was in a similar condition, except that the pelvis was filled and the parenchyma infiltrated with pus, the result of an extensive suppurative nephritis. The cortical portion was quite thickly studded with little abscesses or

depôts of pus. The other organs of the body manifested nothing of any particular significance.

For a thorough exposition of the subject of urethral obstruction I would respectfully refer the reader to an excellent article on "Rupture of Subpubic Portion of Urethra," by Drs. Fenger and Lee, in the Gazette of Feb. 5, 1880.

BACILLUS MALARIA.—Prof. Klebs and Prof. Tommasi Crudeli have made investigations (abstracted from the Archiv für Experimentelle Pathologie und Pharmacologie, in the Berliner klinische Wochenschrift, No. 46, 1879,) in the excessively malarial region in and around Rome, in the Campagna, and the Pontine marshes, with a view to determining the precise nature of the miasmatic influence. They found in these regions, a peculiar species of schizomycetiform fungus, which they describe in the following manner: These bacteria are rod-shaped, two to seven μ . in length. In their development, twisted filaments are formed, which have in their interior more nearly transparent cells or spaces, or are more rarely divided into transverse sections. On exposure to the air, either bushy filamentous processes are given off from the ends of the filaments, or lasting spores are formed in their interior, which, as is well known, neither heat, cold nor drying will affect. From these spores, under favorable conditions, new bacteria are formed. To settle the question whether or not these fungi alone are able to cause malarial disease, they were cultivated in the well-known fluids used for this purpose, Pasteur's Bergman's, etc., and then injected into rabbits. The results were positive in that they showed the pathognomonic symptoms of intermittence, namely: the characteristic tumor of the spleen, with aggregation of pigment. At the same time, fungi of the same species were found in the spleen, the marrow of the bones, and in the lymph of the mesenteric glands. One result of the authors' investigations is of practical interest, namely, that ground favorable for the development of malaria will lose this quality in the same proportion as it is permeated by the effluvia of men and animals, and the more elaborately it is cultivated and fertilized.

FIBROID TUMOR OF THE VAGINA.—Dr. Herman exhibited a fibroid tumor before a recent meeting of the London Obstetrical Society which had been removed from the anterior wall of the vagina. The growth was as large as a walnut, and located just posterior to the opening of the urethra, projecting partly into the vagina. It was easily dissected out with the handle of the scalpel after an incision over it had been made. No hemorrhage and no bad symptoms followed. Under the microscope it was found to be a fibro-myoma.

REVIEWS AND NOTICES.

HOMŒOPATHY: WHAT IS IT? A Statement and Review of its Doctrines and Practice. By A. B. Palmer, A. M., M. D., Professor of Pathology and Practice of Medicine in the College of Medicine and Surgery in the University of Michigan, etc. Detroit: Geo. S. Davis, publisher, 1880.

This is an entertaining book of one hundred pages. It embraces, in the main, the same facts and arguments as the pamphlet copies of the author's lectures, which were printed a few years ago by his medical class. It is not as well arranged as it might have been, and although embodying about all that can be said on the subject, lack of consecutiveness makes it less attractive and pointed than it would otherwise be. The absence of an index is a source of inconvenience, for it makes it necessary for one to examine every page in order to ascertain whether or not it states the fact of which he is in search. The author quotes liberally from the work of the late Prof. Simpson, always giving due credit; but we hardly think the same can be said of his treatment of the "Currents and Counter Currents," of Prof. O. W. Holmes, and the essay on Homœopathy, published a few years ago in the *Chicago Medical Examiner*, by our friend, Prof. Chas. W. Earle. This is a trivial matter, however, and undoubtedly the result of inattention; but the fact is certainly apparent that the author is indebted to the gentlemen named and has not acknowledged it. The style of the book is agreeable, and the typography also; but its appearance would be a little better if "Sympson," "Laeneck," "Curanter," etc., were differently spelled. It will be of service, especially to students and young doctors, as a source of information on what homœopathy pretends to be, and what it really is. Old doctors know this already. The fact that the works of Simpson, Holmes, King, and others are now out of print will be of no disadvantage to the publishers of this book.

JOHN H. PACKARD, M. D. Sea-Air and Sea-Bathing. American Health Primers, No. xi. Edited by W. W. Keen, M. D. Philadelphia: Presley Blakiston, 1880. Chicago: Jansen, McClurg & Co. \$1.25.

This book of ten chapters contains one hundred and twenty-one pages, and is an excellent popular exposé of the subject. It embraces a consideration of the accidents of sea bathing, sea bathing for invalids, cottage life at the sea shore, the sea shore in its relation to sanitary matters, excursions to the sea shore, the sea shore as a winter resort.

BOOKS AND PAMPHLETS RECEIVED.

EDWARD BORCK, M. D. Diseases of the Maxillary Sinus. Reprinted from the *Indiana Medical Reporter*, April, 1880.

Michigan State Board of Health, Sanitary Work in Lansing, Michigan; also a List of the Secretaries of State Boards of Health in the United States.

JOHN H. PACKARD, M. D. Sea-Air and Sea-Bathing, No. xi. American Health Primers, edited by W. W. Keen, M. D., Philadelphia; Presley Blakiston. Chicago; Jansen, McClurg & Co.

HON. JAMES B. EUSTIS. Relations of Communities and States during Epidemics. An Address delivered at the Commencement of the Medical Department of the University of Louisiana, New Orleans, March 19, 1880.

TALBOT JONES, M. D. A Case of Intra-Ovarian Pregnancy, with Post-Mortem Examination. Reprinted from the *American Journal of the Medical Sciences*. Philadelphia, 1880.

WILLIAM WARREN POTTER, M. D. Remarks on Rectal Feeding in Disease. A Paper read at the Meeting of the Medical Society of the State of New York, 1880. Reprinted from the *Medical Record*, April 10, 1880.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM APRIL 29, 1880, TO MAY 12, 1880.

King, William S., Lieutenant Colonel and Surgeon. His leave of absence still further extended six months on account of sickness. S. O. 101, A. G. O., May 7, 1880.

Heger, A., Major and Surgeon. Assigned to duty as Post Surgeon at Fort Clark, Tex. S. O. 78, Department of Texas, April 24, 1880.

Goddard, C. E., Major and Surgeon. When relieved by Assistant Surgeon Waters to comply with S. O. 74, C. S., A. G. O., in his case. S. O. 78, C. S., Department of Texas.

Waters, W. E., Captain and Assistant Surgeon. Relieved from duty at Fort Clark and assigned to duty at Fort McKavett, Tex. S. O. 78, C. S., Department of Texas.

Wood, M. W., First Lieutenant and Assistant Surgeon. Granted leave of absence for six months, and at expiration thereof to comply with par. 1, S. O. 74, C. S., A. G. O. S. O. 97, A. G. O., May 3, 1880.

Gray, W. W., First Lieutenant and Assistant Surgeon. Assigned to temporary duty at Fort Point, Cal. S. O. 55, Division Pacific and Department California, April 27, 1880.

McCreery, George, First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Apache, A. T., as Post Surgeon, relieving Assistant Surgeon Walter Reed, U. S. A. S. O. 48, Department of Arizona, April 16, 1880.

Schué, E. D., First Lieutenant and Assistant Surgeon. Assigned to duty as Post Surgeon at Fort Grant, A. T. S. O. 48, C. S., Department of Arizona.

Cochran, J. J., First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Lewis, Colo. S. O. 94, Department of the Missouri, April 28, 1880.

